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# Trains

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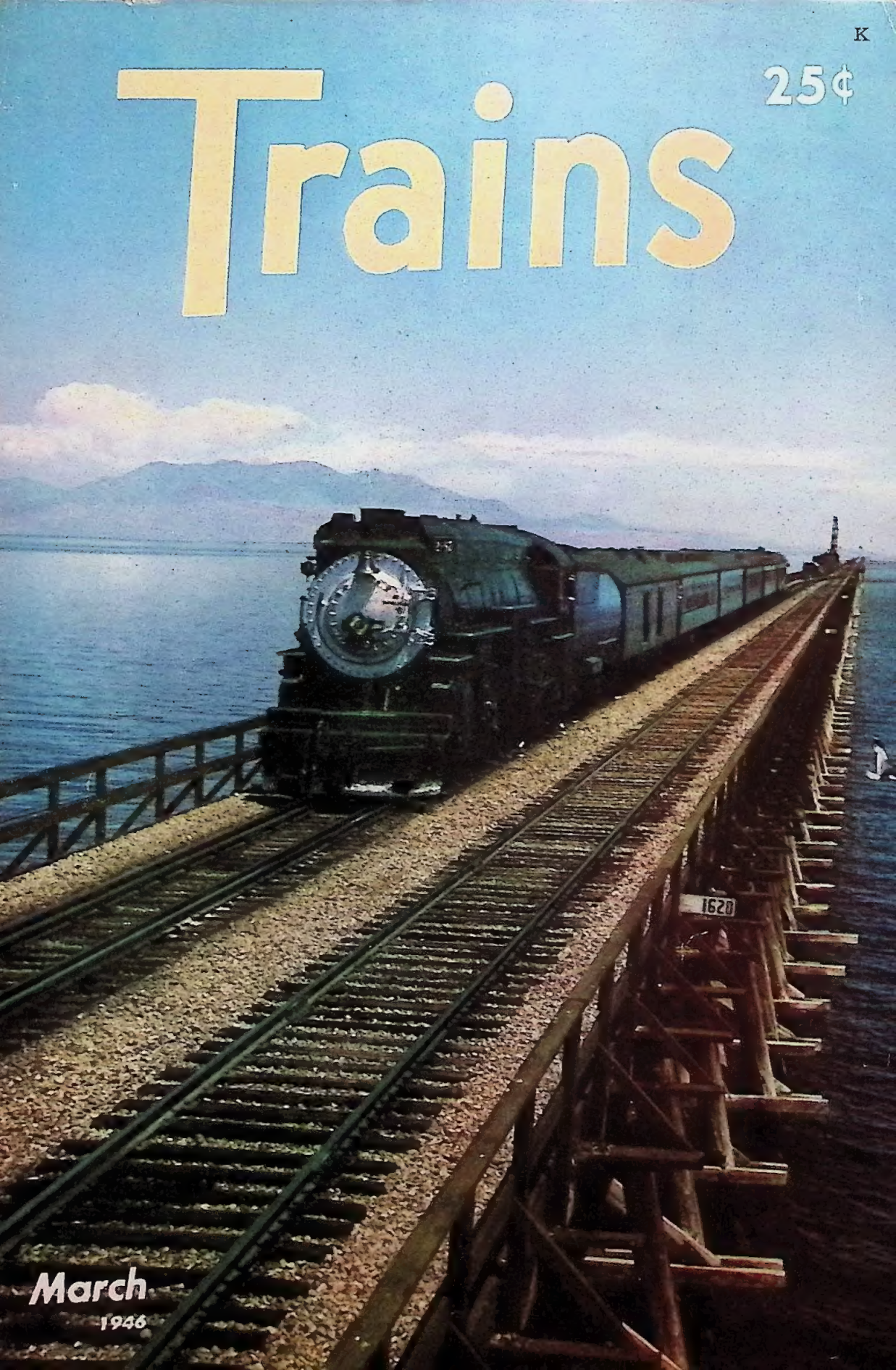


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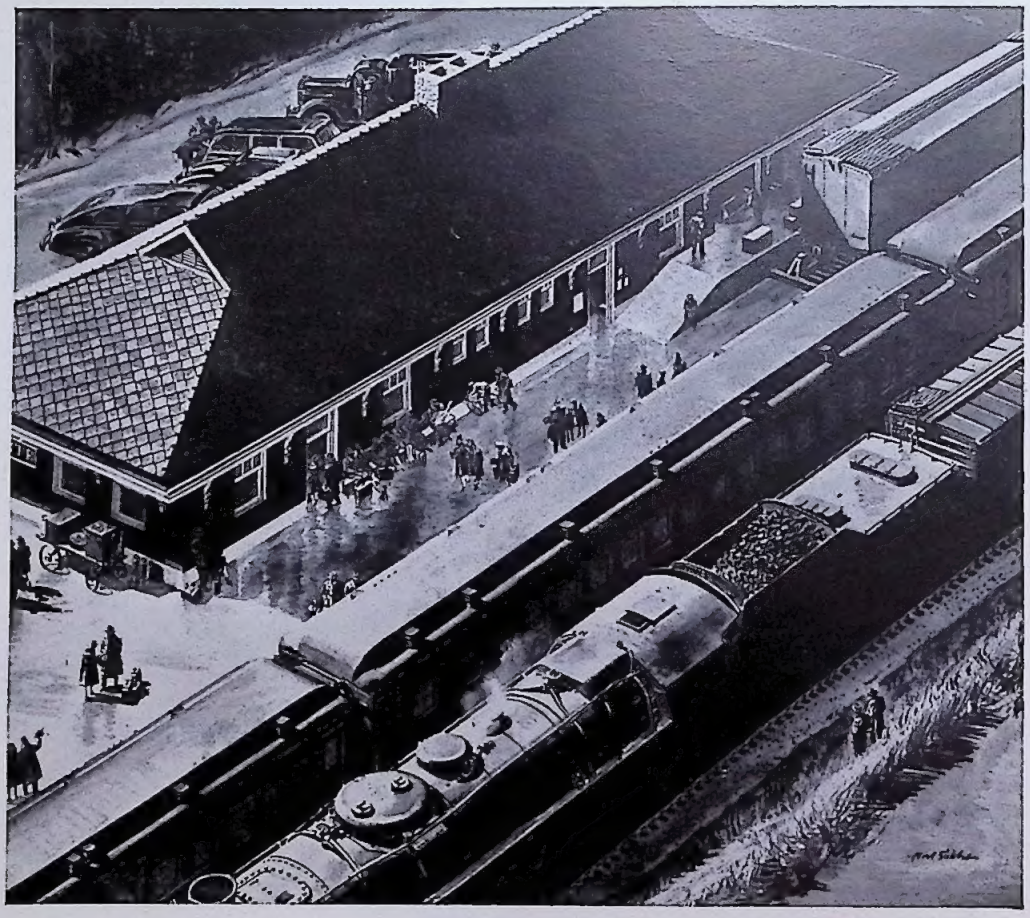


# Headquarters for Transportation Values

HERE'S SOMETHING to remember when you are checking the prices you pay for things *now* with the prices you used to pay . . .

**The general level of railroad freight charges today is no higher than it was before the war.**

This prewar level has been maintained in the face of the fact that the prices of nearly everything for which railroads *pay out* money—wages, materials and supplies, taxes—have gone up, just as the prices *you* now pay for things you buy have gone up.

But the price at which the service is sold is not the only important part of the railroads' value to this nation. The adequacy and dependability of rail service are an even greater value.

It was to its railroads that the nation turned in the emergency of war to haul 90 per cent of all the war freight, 97 per cent of military travel.

And, for the future, it is upon these twin values of the rail system — top-notch service at rock-bottom cost — that the nation will rely.

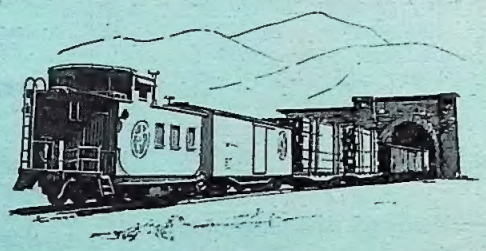
## AMERICAN RAILROADS

# Trains

A. C. Kalmbach - Editor and Publisher
Linn H. Westcott - Editorial Director
Joe O'Hearn-Assistant to the Publisher

Editors
Naome Bauer Julia Bursch
Al Timler Mary Crane

H. H. Kirtland - Business Manager
R. J. Fakler - Production Manager
Ward Zimmer - Advertising Manager



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**March 1946**

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*"The courage it took to build these transcontinental railroads; the vision it called for to see what the country was to become; the whole act of creating these highways of traffic across a continent, form an epic of pioneering hardihood and are evidence of the power of American courage and faith."—Charles Gilbert Hall, in "Through by Rail."*

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## *today...*

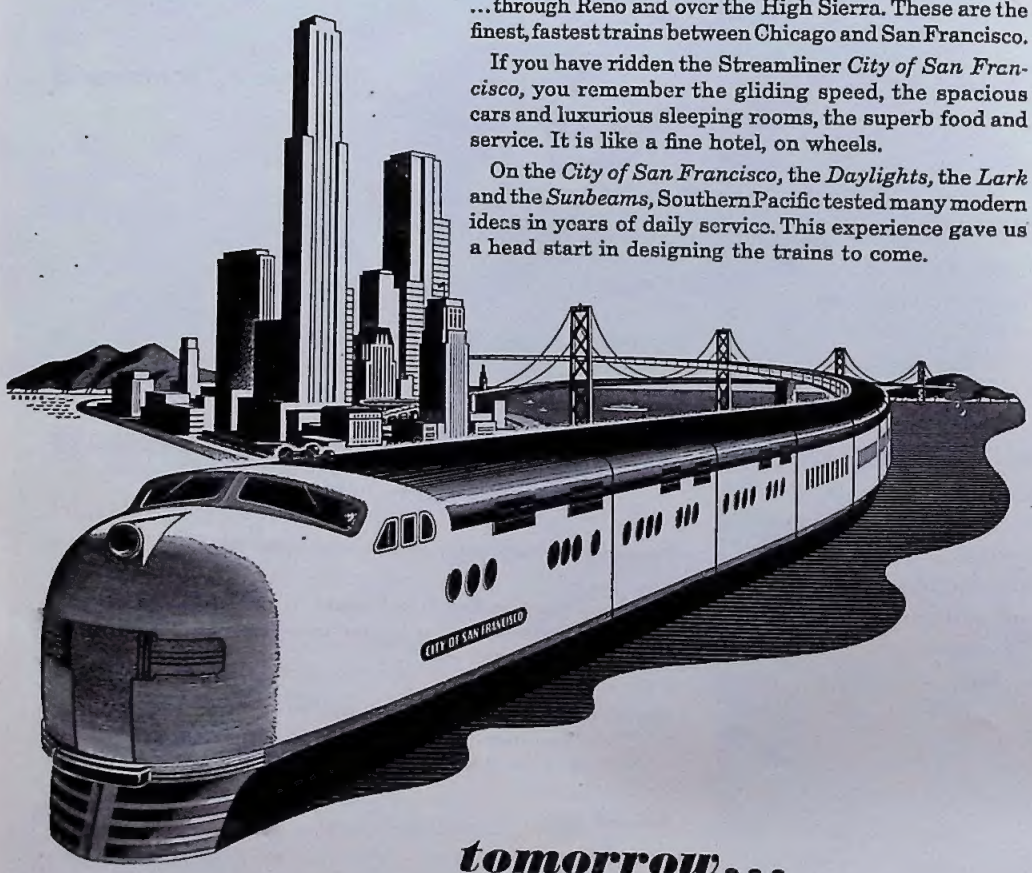
# *The Streamliner* City of San Francisco

## *pacemaker for trains to come*

A sleek golden yellow streamliner glides out of Chicago, and another out of San Francisco. In one day and two nights these famous Overland Route trains span two-thirds of the continent... over the Rockies... skimming across Great Salt Lake on the spectacular Lucin Causeway ... through Reno and over the High Sierra. These are the finest, fastest trains between Chicago and San Francisco.

If you have ridden the Streamliner *City of San Francisco,* you remember the gliding speed, the spacious cars and luxurious sleeping rooms, the superb food and service. It is like a fine hotel, on wheels.

On the *City of San Francisco,* the *Daylights,* the *Lark* and the *Sunbeams,* Southern Pacific tested many modern ideas in years of daily service. This experience gave us a head start in designing the trains to come.




## *tomorrow...*

*Southern Pacific is planning more streamliners. We will have them on our four major routes as fast as conditions permit. Already we have announced plans for the* SHASTA DAYLIGHTS, *and a faster streamlined* CASCADE *between San Francisco and Portland.*

**S·P** *The friendly Southern Pacific*

# The New Trains Are Coming

It won't be long before some of the much anticipated postwar passenger cars will be in service. Settlement of the steel strike removed a big obstacle to construction and delays in delivery of essential parts are gradually being unscrambled. Pullman-Standard announces that assembly is now under way on cars for four railroads, while back shop operations on additional orders have been started.

Part of New York Central's huge order for 712 new cars, sufficient to re-equip practically all its principal trains, is now being assembled in the Pullman shops. The entire 712 cars are divided between Pullman-Standard, Budd and American Car & Foundry. Three hundred are coaches, 312 are sleepers and other cars for first class service, and the other 100 are streamlined mail, baggage and express cars. As the new equipment is received it will go into service on the *Twentieth Century, Advance Commodore, Commodore Vanderbilt, Southwestern Limited, Motor City Special, Detroiter, Wolverine, Cleveland Limited, Iroquois, Ohio State Limited,* and *New England States.*

Another order of cars already being assembled is for Pere Marquette's new service between Detroit and Grand Rapids. Chicago & North Western's 20 new coaches to supplement the "400" service, and the new cars for the *Empire Builder*, four trains of which will be owned by Great Northern and one by Burlington, are also under way.

Meanwhile other new trains continue to be announced. Col. E. J. W. Ragsdale, chief engineer of the railway division of Edward G. Budd Manufacturing Company, says the railroads of America will make improved passenger service profitable by running trains faster and oftener, thus spreading the fixed costs over more passenger train miles and earning a greater return on their $5½ billion investment in rights of way.

Two of the more spectacular orders for new trains presage daytime streamliner service over two runs which formerly were overnight plus, San Francisco-Portland and Chicago-Washington. Southern Pacific will not only streamline its *Cascade*, premier Portland-San Francisco overnight train, but has ordered two Diesel powered 14-car streamliners for late 1946 delivery to run over the same route. These will be known as the *Shasta Daylights* and will leave the two terminals in the morning and arrive in late evening. They will have the familiar orange and red Daylight color scheme and will feature unusually high windows to give a better view of the Cascade Mountain scenery. The new *Cascades* will have three-unit diners similar to the *Lark*. A. T. Mercier, president of SP, said, "We hope the new Cascade cars will be ready for service early in 1947. Meanwhile we intend to improve the present running time as quickly as heavy traffic subsides sufficiently to permit faster schedules."

The daytime Chicago-Washington-Baltimore service was announced by Baltimore & Ohio, which has ordered two eight-car trains for the run. Each will have a buffet-lounge car, four regular coaches, a coach with dome observation section, a dining car, and an observation car. Radio and public address facilities will permit important broadcasts to be heard in all cars. Exterior color scheme will be the standard blue and gray used on B&O streamlined equipment. These orders followed earlier orders for 15 new all-room sleepers for B&O overnight trains.

Erie has ordered seven Electro-Motive Diesel passenger locomotives for use on its through Chicago-New York trains and expects to cut the running time by two hours. Seven all-room sleepers are being ordered and 15 coaches are being rebuilt to modern standards for use on the through trains, Erie Limited, Pacific Express, Atlantic Express and the Midlander. They will have a new exterior color scheme to match the locomotives.

Another new daytime streamliner will be the *Atlantan*, on a 12-hour schedule betwen St. Louis and Atlanta, via Louisville & Nashville from St. Louis to Nashville and then NC&StL through Chattanooga to Atlanta. The roads expect that the two seven-coach Diesel powered trains will be delivered by June. More than $2.6 million will be spent on reducing curves and grades along the route and $320,000 will be expended for CTC between Cartersville, Ga., and Chattanooga. This will give Atlanta three new streamliner services, for Central of Georgia has already announced new service between the Georgia railroad center and Savannah and Columbus.

### New Canadian Pacific Herald

The beaver symbol of the Dominion has been resurrected by Canadian Pacific in a new herald. A beaver at work crowns a shield bearing the hand-lettered legend "Canadian Pacific." Below is a globe carrying the CP slogan "Spans the World." The CP's new design brings the beaver back to a position it enjoyed from 1885, when the CP was completed to the Pacific coast, until 1929 when the crest was changed. The beaver has always been symbolic in Canada, a pioneer land where the pelt of the "forest engineer" was a form of currency.

### Detroit Station Being Rebuilt

The Fort Street Union Depot in Detroit, which was built in 1892, is now being completely rebuilt to provide a more efficient arrangement of facilities and more room in the waiting room and concourse. Work began in November and will be finished in about a year. The station is used by trains of Pere Marquette, Pennsylvania Railroad, Wabash, and, until labor difficulties in connection with B&O's move to NYC station are settled, by trains of the B&O.

The old waiting room was 2½ stories high and was cluttered up with many offices not used by the traveling public. Now the ceiling is being cut down to 1½ stories and a new second floor built for railroad offices. This makes room not only for a larger waiting room

but for rearrangement of ticket offices, rest rooms, baggage room, lockers, newsstand, and other facilities in such a way that the traveler meets them in logical order as he passes through the waiting room.

The concourse has been enlarged both by removal of a portion of the old ticket office and by moving the train gate wall three feet farther toward the tracks. It will now be a large open room with a vaulted ceiling, tile walls, fluorescent lighting, the most modern of train bulletin boards, illuminated gate signs, and public address system. Additional doors will open directly onto Fort Street at the side of the station and more doors will be provided between concourse and waiting room.

The waiting room will be 1380 square feet larger than before. The newsstand will be in the center of the wall between concourse and waiting room and will open onto both. Lockers will be recessed into the walls. The ceiling will be soundproofed. Ticket offices will be along the side of the waiting room. Provision is being made for air conditioning, to be installed as soon as equipment can be purchased.

## Rock Island Cutoff In Use

The Rock Island has cut into its main line the third of the series of cutoffs with which it is improving the grades and curvature across Iowa on the Golden State Route. Two more such projects are under way, and when they are finished Rock Island will have some 90 miles of new roadbed and track between Kansas City and Davenport, with curves reduced to one degree or less and ruling grades of not over .5 per cent.

The latest relocation, from Centerville to Paris, Ia., was begun in June, 1945, and resulted in a reduction of mileage from 21.98 miles to slightly over 18. The old track had many two and three degree curves totaling 813 degrees, while the new line has maximum curvature of one degree and a total of only 82 degrees. The seven miles of one per cent grade into and out of the Chariton River bottom have been reduced to .5 per cent.

The Iowa line changes are only part of a vast program of line changes and new bridges by which the efficiency of the entire Rock Island Golden State Route has been improved in recent years. The new Kansas City bridge and the Cimarron bridge are other notable examples. Before the war Rock Island engineers made plans for a new line of more than 100 miles across Iowa, one which would cut diagonally across the right angle which the main line makes in the southern part of the state and in northern Missouri. This project would have made Rock Island the Kansas City-Chicago short line. Everything was all set, even the financing. But the war started and material could not be obtained. The series of audacious improvements on the old line was carried out as the best alternative.

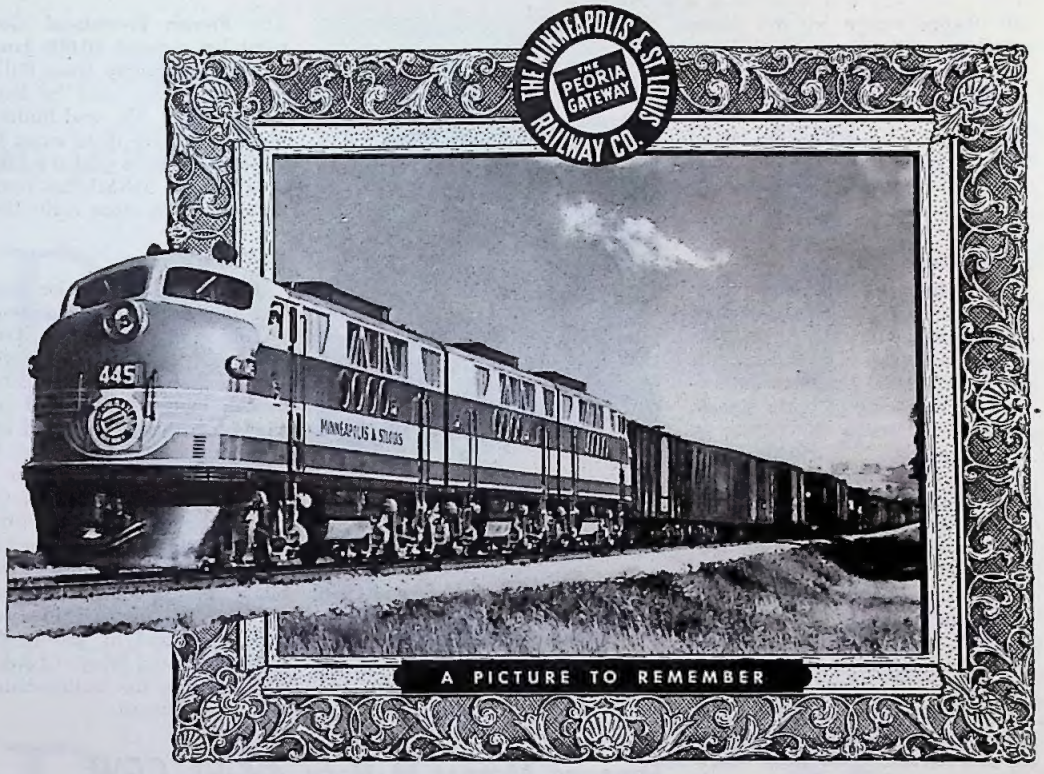
**The New Haven has ordered 180 modern streamlined passenger cars, 100 of which are to be coaches, 10 dining cars, 15 grill cars, and the remainder lounge, parlor and observation cars. These will be sufficient to re-equip all Shore Line trains between New York and Boston as well as some New York-Hartford-Springfield trains. Exteriors will be finished in shining corrugated metal, accented by a stripe of New Haven hunter green at window level. Photos show proposed exterior and new type smoking lounge.**

## Short Run Sleeping Cars Back

Wartime sleeping car restrictions will be ended by the 15th of this month. The 1200 troop sleepers which were held up last fall by strikes are finally in service, and the supply of sleepers can now be stretched to accommodate the short runs which were eliminated by ODT decree. The shortage of space will probably continue until new equipment begins to be delivered in quantity, but at least cars can now be operated on many a popular overnight run which was unfortunately under 450 miles.

As of February 15 the mileage limit was decreased to 350 miles, as of March 1 it went down to 250 miles, and as of March 15 it will be eliminated altogether. The first step allowed railroads to put back such popular sleeping cars as the New York - Pittsburgh, New York - Buffalo, Washington - Providence, New York - Montreal, Chicago - Minneapolis, Chicago - Ashland. In some cases removal of the restriction meant that all-Pullman trains which had been discontinued could be put back on the timetables. For instance, the New York Central and Delaware & Hudson began running their overnight *Montreal Limited* northbound on February 15 and southbound the next day.

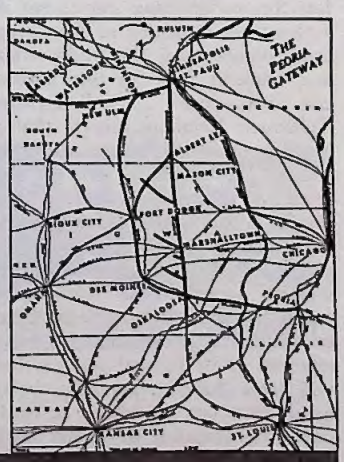
In some cases the sleeping car restriction meant permanent new train service. The Pennsylvania, for instance, had countered the withdrawal of its all-Pullman *Pittsburgher*, New York-Pittsburgh, by putting on a fast late afternoon coach and parlor car train under the same name. The afternoon train has proved so popular that with the *Pittsburgher* back in service the new train is being continued with-




# *Speeding Freight* IN THE GREAT MIDWEST

The Map shows the strategically located lines of The Minneapolis & St. Louis Railway and its Peoria Gateway, which save precious hours in movement of fast freight in the industrial and agricultural empire of the Midwest.

The Picture shows a train that is typical of new equipment the M. & St. L. has added to its car and locomotive fleets during 1945, in a program of modernization begun ten years ago and going on constantly. On this, the Railway already has spent $25,000,000. Newest of the rolling stock includes sixteen Diesel locomotives; a thousand modern steel box cars of 100,000 pounds capacity; ten lightweight aluminum box cars, some of the first ever built; and 150 hopper-type coal cars. This equipment operates on equally modern heavy-duty tracks.




## *The* MINNEAPOLIS & ST. LOUIS *Railway*

GENERAL OFFICES: NORTHWESTERN BANK BUILDING • MINNEAPOLIS 2, MINNESOTA

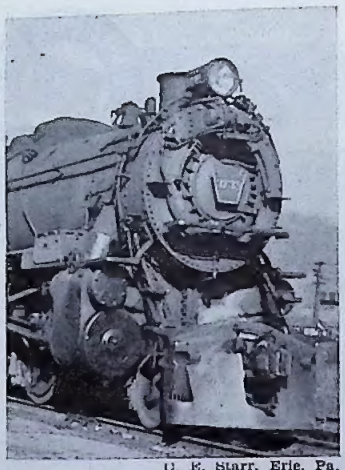
out change except for the name, which now becomes *Steel King*. New York Central changed its overnight *Genesee* between New York and Buffalo into an afternoon train and is now putting the sleepers back onto other overnight trains and leaving the *Genesee* as an afternoon train.

### Odds and Ends

The Illinois Central recently finished replacing all semaphore block signals with color lights. This covers 2919 miles of track. Expenditure of $360,000 has been authorized for respacing of block signals to allow IC trains to operate at higher speeds. . . . Pacific Fruit Express, owned jointly by Union Pacific and Southern Pacific, has ordered 2000 new refrigerator cars. This is in addition to 1000 recently delivered. . . . The Virginia & Truckee has redecorated and refitted its club car, the Julia Dulett, with rose colored interior, red plush seats and illustrations on the walls and ceilings in the style of the 1870's. Julia Dulett was a famous lady of the Comstock Lode, the rich silver deposit from which V&T in its youth hauled as much silver as the weight of the road and its equipment.

First snow train since the war was run on the New Haven, Sunday, January 27, from Grand Central up into the Berkshires. It was made up of coaches which had been assembled in New York for late Sunday evening movement of furloughees returning to New England points, and the snow train was back in time for this normal use of the cars. . . . *Radio and Television Retailing* reports that a leading railroad is considering placing a television eye in the front end of the locomotive with a screen in the lounge car so passengers may have the sensation of a cab ride. . . . A high-speed lightweight experimental refrigerator car is being built by Illinois Central which will not only be more efficient in its normal service, but will also have removable bulkheads so it can double as an ordinary merchandise box car with added space.

Welding will largely supersede riveting in the postwar program to replace much of Canadian National's rolling stock. . . . The standard 2½-day sightseeing tour of Yellowstone National Park will be available in the summer of 1946 for the first time since before the war, it is announced by the roads serving the park, Burlington, Northern Pacific, Milwaukee, and North Western-Union Pacific. . . .



U. E. Starr, Erie, Pa.

**Positions of headlight and generator are being changed on some Pennsylvania K-4's as in this photo of 3738.**

The French Provisional Government has ordered 10,000 box cars of 20-ton capacity from Pullman-Standard. They will be built in the Bessemer, Ala., and Butler, Pa., plants. . . . Five more major traffic offices have been added to the six at which the M&StL has operated teletypewriters since early 1945.

### V&T Calendar

An attractive two-color calendar featuring a large wash drawing of an old time Virginia & Truckee passenger train, together with a map of the road and complete historical, motive power and rolling stock data, has been issued by the Railroadians of America, San Francisco Branch, 1500 Chanslor Ave., Richmond, Calif. The drawing is the work of Warren Merritt and the lettering, map and border are the work of Captain Frederic Shaw. Both are experts on historic western railroads, and the calendar will be valued by anyone interested in the old West. Copies may be had from the Railroadians for 50 cents postpaid.

## Propose Merger of Katy, C&EI, CGW

Merger is proposed for the Missouri-Kansas-Texas, Chicago & Eastern Illinois and the Chicago Great Western. This would create a new 5811-mile road reaching from Chicago and the Twin Cities through Kansas City and St. Louis to the Gulf at Galveston-Houston.

The merger rumors are substantiated by the fact that Edward N. Claughton of Miami, the man who fought the Katy proxy battle with the late Matthew N. Sloan, now has holdings in all three roads. He told *American Business* a few weeks ago that he is now putting all his spare money into securities of the three roads and expects to own 50 per cent of C&EI stock by the date of its next board meeting. Katy officials are frankly for the merger, which would give their road the through connections it needs, and Patrick Joyce, president of CGW, said, "We hope the deal goes through. Mr. Claughton is a splendid and able gentleman and he owns a block of our stock." C&EI on the other hand is noncommittal and can afford to be. Of the three roads it is in best financial position since it has just recently come out of reorganization.

An end-to-end merger proposal like this always raises the question of how much of present interchange traffic would be kept, for the merger would change the competitive line-up. For instance, if Katy joined with C&EI for a route through St. Louis to the Southwest, C&EI's competitors for the Chicago-St. Louis traffic, Wabash, Illinois Central, and Alton, would naturally avoid Katy with their Southwest traffic. Whether the solidarity of a one-line routing would in the long run make up for any diversions on account of competition is a problem Mr. Claughton and the executives of the three roads will ponder long and deeply before they take any action.

A merger is at any event two or three years in the future. It must be approved by stockholders of the roads and then by the Interstate Commerce Commission. The ICC approval means long hearings with competition, labor, perhaps minority security holders, and maybe even some chambers of commerce making more or less telling objections.

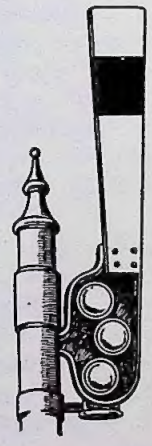
*A. C. Kalmbach.*

In plain words:

# Paddle=

In railroad lingo:

# Paddle=



In any language:

## A Great Railroad!=

FRISCO LINES

ST. LOUIS-SAN FRANCISCO RY.

Words can scarcely describe the epoch-making new smartness, comfort and convenience being built into Frisco's new Diesel-powered streamliners, Meteor "Flash" and Texas Special. They are part of a vast development progam involving the expenditure of millions. Great things are happening to make Frisco even greater!

GREAT THINGS ARE HAPPENING ON THE FRISCO

# Trainfolk on the Erie

## From a passenger's notebook after riding 999 miles by coach over the Erie during the historic Christmas rush of 1945

BY LINN H. WESTCOTT

**Just out of Dearborn Station, the Erie Limited gathers speed for its first few miles of run over Chicago & Western Indiana's tracks. Last winter our train had many more cars than the day this photo was taken. The head end almost always has a K-5 Pacific. This was followed on our train by five mail, baggage, and express cars, four coaches, a diner and Pullman.**

Railroad Photographic Club, 47 Royal St., Allston Sta., Boston, Mass.

*When* I asked at the ticket window for passage from Chicago to New York via the Erie, the weathered agent said, "You don't want the Erie. Try the Pennsylvania or the Central." But I insisted I knew what I was doing, and he made out the ticket while continuing to glance up at me as if I were a lunatic. Somehow, perhaps because the running time is longer, the Erie has a bad reputation for through travel, but most of the people who mouth this reputation have never actually used the route. After my trip I'd recommend the Erie for comfortable travel, beautiful scenery and a panorama of rural and small city life you'll never see on the more traveled lines. And I acquired this good impression in spite of purposely riding the line during the Christmas rush.

As I went to Chicago for connection with the *Erie Limited,* I found the *Hiawatha* full, with several passengers standing per coach. In the ends of the cars posters politely explained that the railroads had sent many coaches west to bring servicemen home. Norman Ross, on his C&NW *"400"* hour, had been cautioning people against rail travel during the holiday season. Newspaper editorials had pressed home the message. But here I was anyway, heading toward Chicago, Albany, and New York City.

From the Chicago Union Station I transferred to Dearborn Station where the *Erie Limited* was to make its departure at 4:55 p.m., nearly two hours later. Dearborn is one of those stations that the railroads do not illustrate in their gorgeous travel bulletins. It's overgrown and a bit on the dismal side just like many another of the older stations about the country. I walked through a masonry arch past an old cast iron staircase to a labyrinth of rooms and halls with high ceilings all permeated with a faint mixture of tobacco and locomotive smoke. There are no vast waiting rooms or concourses, just cubicles connected by arches. In each there are a few benches, some of those dime-in-a-slot baggage lockers, all full, and a lot of bored looking passengers sitting, standing, milling around or moving into the Harvey House.

The Harvey House occupies the west end of the building and is bright and clean with crystal glass doors, a carpeted lounge where patrons can wait for tables, and a very snappy looking bar.

Two hours is a long time to wait for a train. First I sat on my suitcase. Then I picked it up and wandered around the station. I went into the crowded ticket room at the east, past the smoky servicemen's waiting room where I had a glimpse of desks for writing letters and tables for playing cards. Just outside the station was a Salvation Army truck fitted to dispense free doughnuts and coffee. A gray government bus waited while three sailors finished their share.

Before moving to the gate I stopped for a copy of *Coronet* and two science magazines at the newsstand. Ordinarily I never read these magazines, but they are favorites of mine when aboard a train, especially since there is a large selection of short items to read and there are plenty of pictures to rest the eyes between readings.

I also stopped at the fruit and cough drop stand to ask the girl for an apple. Instead of getting the usual "I wish you wouldn't bother me" service expected in large cities and particularly in railroad stations, the girl smiled, walked out in front of the stand and picked out a very nice apple. But then she looked over every apple in the neat pyramid and found a better one. It was more than four inches across. Later I found it had the best flavor I'd ever tasted.

Then through the doors I went to the concourse. It isn't very long. Tracks are separated from the concourse by an iron fence with sliding gates opposite each platform. The *Erie Limited* was to be on Track 4, but the sign was not yet lighted nor were any cars in sight. Other signs stood by ready for the departures of other important trains, the *Super Chief* for California, the *Dixie Flagler* for Florida, the

*Blue Bird* for St. Louis. Over the tracks is a low train shed and half way down the platforms a city street cuts across all the tracks with crossing gates at each side. They are down much of the time because of standing trains.

But unlike the situation at stations which have more track capacity, few trains are left standing for very long under the train shed at Dearborn. The station is owned by the Chicago & Western Indiana which is the joint terminal property for the C&EI, the Grand Trunk, the Wabash, the Monon, Santa Fe, and Erie. Chicago & Western Indiana also runs suburban trains along its line to Dolton, Ill., 16 miles south of Chicago. The road has only 10 passenger cars so the service is obviously light. In addition to these facilities it does a considerable amount of freight switching and has several exclusively freight lines in the Chicago area.

Looking at my watch, I found there was more than an hour left until train time. I thought of the long trip ahead of me, 26 hours with no Pullman reservations available. The last time I rode all night in a coach was on one of Milwaukee Road's Carleton College Specials back in 1933. I still remember the aches and pains and chilled neck and arms from sitting so long without much exercise. This time I thought I'd fool that old day coach. So with a 20-pound suitcase and my overcoat I started out on a hike through the Chicago Loop on the theory that a lot of exercise might make the coach ride more comfortable. Half an hour later I returned to the station with tired feet and a short breath. Whether it was the hike or not I never felt more comfortable on a railroad coach than on the ensuing trip.

Cars for the *Erie Limited* had now been spotted and the gate sign was lighted. Some 30 or 40 people were gathered near the gate, but they did not crowd up close as was usually the case under wartime travel conditions. More than half of them were service personnel. There was a soldier going home to his wife and three children at Addison beyond Hornell. He and many others—sailors, WACS, WAVES, marines, nurses—were taking their last trips in uniform just in time to have a wonderful Christmas at home. One long-faced soldier was taking his wife and a 14-month old baby along. They had to spend all night and the next day in the coach on their way to Binghamton.

By 4:35 enough people had gathered to half fill that portion of the concourse, but still there was no pushing or shoving. A gateman shuffled up to the gate of Track 3 and let the service personnel go through first. It seemed like an endless parade to those of us who were civilians. There just couldn't be any seats left after those people filled the train.

As the last sailor made a beeline from the ticket office to the gate we picked up our luggage and were soon moving down the platform to the coaches.

The Erie is very courteous to its passengers, exceptionally so for an Eastern road. This was evident immediately as we boarded the car. For every passenger there was a smile 4 feet 8½ inches wide on the face of the trainman who helped us up the steps and directed us politely as to just what car to take. Passengers traveling farthest were headed to a coach with reclining seats located just in front of the diner. Others were requested to ride in the three coaches ahead outfitted with the older style green plush seats. I edged through the corridor expecting to find a car crowded with servicemen, but to my amazement there were seats, not just single seats beside someone else, but double seats. The reclining chairs were of the best sort. There was a footrest that could swing up and an armrest between the seats that would fold away if you knew how to do it.

A lady was struggling with the armrest of her seat near by. It was like a monkey puzzle moving in every possible direction except the one she wanted it to. A sailor offered his help, then a soldier, and soon four or five people were trying to figure out how to fold up that armrest. There was a great look of relief on all of their faces when a trainman passing through the car smiled, gave the arm a simple twist and swung it into its place. It all looked so easy but none of us could do it ourselves even after a demonstration.

I missed the clean look that Milwaukee Road and North Western coaches have. This Erie coach had a more begrimed look about it and in spite of the no smoking signs at each end of the car there were cigarette stubs wedged into the table sockets in the wall next to the seats. While the cars looked dirty they were really quite clean. Our shirt collars and cuffs were not at all grimy looking when we pulled into Jersey City the next evening. At the far end of the coach was a glass-partitioned section where passengers could smoke.

Beside the four coaches there was a 10-section Pullman sleeper and a dining car that

Beyond Hammond it was mostly darkness except at stations. At North Judson a freight train receives train orders at this quadruple crossing between the NYC, PRR, C&O, and Erie roads.

C. G. Gibb, 6547 S. Union Ave., Chicago, Ill.

went as far as Marion. Early the next morning another diner was attached at Youngstown. Up front there were five cars for mail, baggage, and express, all jammed to capacity with Christmas packages and cards.

Opposite my window was the Wabash *Blue Bird*. It was to depart at 4:50 p.m. and would reach St. Louis at 10 p.m. A few last minute passengers hustled into the cars. The *Blue Bird* conductor glanced at his watch and gave the highball.

Now it was our train to which the stragglers were hurrying. Although 4:45 came and went the train did not move because trucks of mail were still being loaded at the head end. We left about 10 minutes late, 10 minutes that were never made up.

The landmarks along C&WI's right of way are familiar to me. In the days before film shortages I had taken pictures along this stretch. First it dips under the Rock Island and the Illinois Central tracks. Then it runs along the Chicago River with the Santa Fe roundhouse, commissary, and freight station to the left. The trains turn as they pass the south end of the Pennsylvania Railroad's vertical lift bridge and from here, pick up speed on a six-track right of way. This line is elevated above all the streets from 20th Street south as far as 109th Street. It follows just west of the Pennsylvania tracks as far as 47th Street, then swings over about two blocks farther west on a broad S curve to continue southward. A brief stop was made at Englewood (63rd Street) and then we came to the junction at 74th Street where the slip switch pictures in the December issue of TRAINS were taken. Here we started down a slight grade and reached a fair speed.

The *Erie Limited* is a train of the old school, good service all along the line but no real speed. Since the Erie is primarily a freight road and not much interested in through passenger business beyond developing the resources of the towns along its line, its three through trains each carry a quantity of mail and express, making for long station stops and a low average speed in spite of fast running between stops.

In the darkness there are only a few landmarks to show where you are. Even the place where the C&WI swings east and crosses over the electrified line of the Illinois Central is easy to miss. In the distance are the lights of the Pullman plant shining across swampy Lake Calumet. Steel furnaces brighten the sky and the great tanks of the oil refineries are seen on all sides.

At Hammond the train stopped across one of the main streets. Christmas lighting brightened the shopping area and the headlights of waiting automobiles glared into our windows. Alongside was the single-track line of the Monon and its depot which looks like a small bank building. There was a delay in loading

Erie Railroad.

In the early morning we were delayed by several meets with freight trains along the single-track section between Pymatuning and Meadville. This meet is at Stony Point, a minor summit approached from either side by one per cent grades. Near here we also passed one of Erie's Diesels on its run from Meadville to Marion, on the Mahoning and Kent Divisions.

Erie Railroad.

mail here and we pulled out at 5:52, 17 minutes late. After the last few lights of Hammond glided past it was very dark outside for many, many miles.

I struck up a conversation with the soldier who was going to Addison. Before the war he was a brakeman on the New York Central with a run through the Black Forest to Newberry Yard near Williamsport, Pa. After resting a month or so he was going back to the work; he liked a job where he could be outdoors some of the time. We got to talking about the railroad unions, which he thought were better than most. He said he thought it was a sensible idea for the railroads to run two-man crews on branch line passenger trains, but if the union gave way on that point they couldn't trust railroad management. He said, "The management would put automatic devices on mainline trains and use two-man crews there too. Then a lot of railroad men would have to work in other industries."

I remarked how the car was riding rather roughly. He said that the roughest parts of the line were in Indiana and along the Delaware River. In between the line rides as smoothly as could be desired.

The lights in the car were dimmed some time after we crossed the Ohio state line. Most of the servicemen were already asleep but the civilians, most of whom were not used to sleeping in a day coach, were still talking or looking ahead with a blank stare. I maneuvered around trying to be comfortable in different positions but without much success.

A WAC across the aisle was traveling with a girl friend. She left her seat and struck up a conversation with a soldier two seats ahead, I think mostly so her civilian girl friend who was not used to night riding could have a coach seat all to herself. After 20 minutes or so many of the passengers were nicely settled.

Then down the aisle came a scene usually familiar on night trains where there are a number of young fellows, a parade of men who had had almost too much in the lounge car. They talked quite loudly and rocked so much from side to side that between the noise and the bumps against the shoulders of the seated passengers they managed to wake up everyone in the car. Next a football game ensued with a hat for the ball. The antics were so comical that no one seemed to really mind being awakened. We pulled in at Marion and one of the servicemen managed to get the well-oiled football team out on the platform for a breath of fresh air.

I was interested in noticing that the Marion station is situated at a railroad crossing in very much the same way as the Durand station in a recent story in TRAINS. I began thinking of all the other railroad stations I could recollect that have platforms down each side of a crossing. Joliet, Ill., Wyeville and Camp Douglas, Wis., . . . like counting sheep, before I knew it I was asleep.

Before the night was over I had found a very comfortable way to sleep. Two accessories I had along were a godsend. One was my suitcase which had rounded edges, the other a sweater I had shoved into the suitcase the last minute before I left home. I put the suitcase on the floor next to the aisle as an elevated footrest. The rounded edges made it possible to hang my heels over the far side without being uncomfortable. The sweater was wadded into a pillow so I could rest my head on the window sill. With my overcoat folded up near the armrest next to the window to support the middle of my back I was able to sleep completely straightened out.

The GI who was traveling with his wife and one-year-old child had a tough night. All three sat in one double seat. The girl kept milk in a vacuum bottle. Up until about two in the morning the baby slept well. Then . . . well, the whole car was trying to get the baby to laugh or do anything but cry. The poor mother just looked embarrassed and the father jiggled the child on his knee. This scene repeated itself approximately every hour all the way to Binghamton the next afternoon.

At each station there was a delay for mail. By the time we reached Sharon, the first stop in Pennsylvania, we were an hour late. Sharon station is a neat one story modern building at the side of the street and automobiles drive by the cars as they are being loaded. This of course is a throwback from the early railroad days when a railroad company often would locate its line down a village street to avoid higher right-of-way costs over private property. The Erie has a similar station at Corning and did until recently at Elmira.

We stopped several times along the line between Sharon and Meadville. Beyond Shenango, this section is single track and is the bottleneck of the system. We made meets with several heavy freight trains, one of which was hauled by one of the Erie's new Diesel

freight locomotives. I went to sleep again and in what seemed like only five minutes, was awakened by a cheerful voice saying:

"Wake up folks, have some hot coffee and cake."

Outside it was bright daylight. I looked at my watch; it was 7:54, about time to approach Jamestown. Actually we were very late and had not even reached Meadville. I do not know what had caused all the delay. Though I was half asleep, I recollect the trainmen going by my seat saying something about a bad generator. When the coffee man came through, the train was standing still near a switch and crossing a mile or so west of Meadville. A fresh hole had been dug in the ballast and a telephone box was ripped off a near-by pole. I couldn't make sense out of all this but it must have had something to do with part of the delay.

At Cory the servicemen were invited out on the platform for free doughnuts and coffee, a service several towns on the Erie maintained for the Army and Navy men throughout the war.

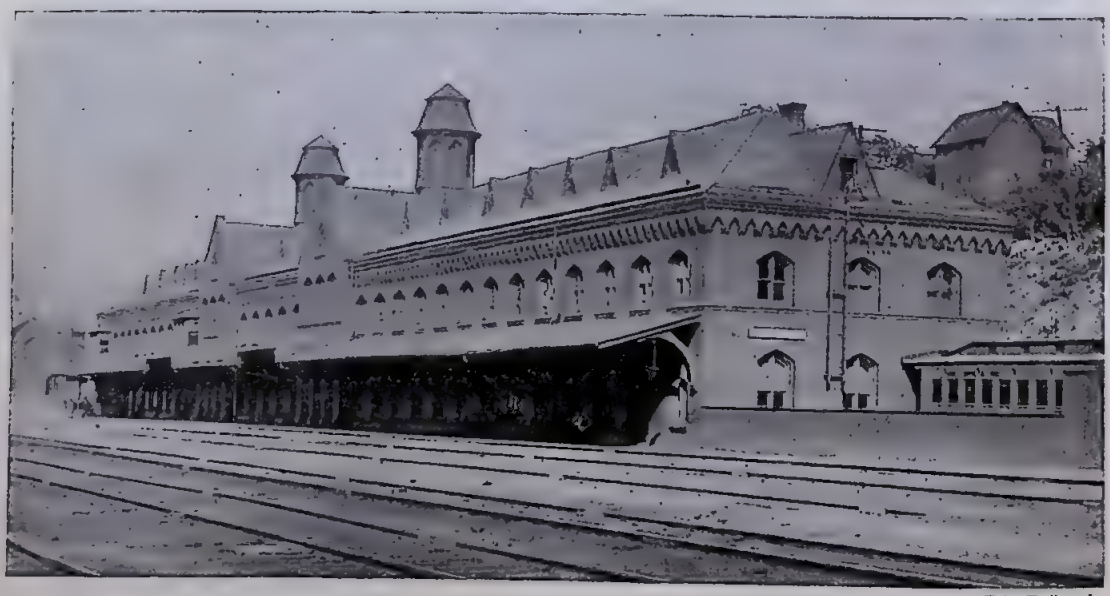
All day long we ran across southern New York just a few miles above the Pennsylvania state line, a location which resulted from the original New York charters. The towns are spaced with great regularity and each has a distinctive personality of its own. There's Jamestown near Lake Chautauqua, famous for its "Chautauqua" meetings. Jamestown is one of the largest smaller cities along the Erie, a furniture making center, and one terminal of the electric Jamestown, Westfield & Northwestern. Many passengers get on and off at the efficient looking station.

A few miles beyond is Salamanca, which still belongs to the Indians. Here we passed a troop train filled with Okinawa boys bound for Portland, Me. The windows of our car opposite every WAC or WAVE were soon opened and hearty conversations about where they had seen service, etc., continued until our train departed.

From Salamanca to Olean the Erie follows the Allegheny River along its north bank. Many freight lines of other railroads parallel or cross the Erie in this section, coming from the oil area around Bradford and the coal fields farther south, headed for Buffalo.

From this stretch to the eastern terminals the train follows most of the way on the original New York & Erie roadbed started from a point on the Hudson River in 1836 and completed to Dunkirk on Lake Erie in 1851. Until 1878 this was a six-foot gauge railroad, only one foot narrower than the famous Great Western broad gauge in England. The older stations and the viaduct even today remind one of England.

Olean is in the heart of a forest of oil storage tanks. The name Olean itself stems from the word oil. The railroad turns up the valley of Oil Creek where a branch of the Pennsylvania can be seen to the left below, located on an old canal path. From Cuba, a pretty town encircled by the railroad with a large sweeping curve



Erie Railroad.

C. George Krumm, 1603 40th St., North Bergen, N. J.

**Just before we crossed the famous Starrucca Viaduct we stopped for about ten minutes at the old station at Susquehanna, Pa. This is a very old building built in the days of the six-foot gauge. The yellow coach standing at the west end of the station is one of the old broad gauge cars, now preserved as an historic monument. At the station the railroad is already well above the river level. Going eastward it continues on the toughest grade of the entire main line over the viaduct and through Cascade Valley, to Gulf Summit.**

along the hillsides to the south, a single-track low-grade line branches north to connect with the Buffalo line. It is used by mainline freight trains to avoid the 1700-foot summit just east of Cuba on the main line. Beyond the summit, our line, which is single track for 51 miles, drops down into the Genesee Valley. Just as the railroad turns into the valley one can see the abutments of an abandoned railroad viaduct which once carried tracks over the Erie. This was the Buffalo & Susquehanna Railway built in 1905 and abandoned shortly after. Part of the system, which connected Buffalo to points in north central Pennsylvania, is still operated by the Baltimore & Ohio out of Addison and Wellsville as an orphan division entirely disconnected from the parent company.

Soon a stop is made at Wellsville where a few oil wells can be seen. The grade over another summit of 1772-foot elevation between Wellsville and Hornell is located in a beautiful cleft in the mountains. This is the highest point on the main line. The valley was apparently the gorge of some ancient stream in glacial times. Today it is known by the poetic name of Railroad Brook. The defile is only 200 or 300 feet wide with swampy ponds in its bottom and the single-track Erie and a highway along its sides. The train curves slightly to the left and right as it gains altitude. The panting of the engine grows slower and sharper. Erie locomotives have a distinctive exhaust bark all their own, a slight metallic ring that sounds something like "churn-churn-churn . . ." said in a breathy staccato manner.

It seemed as though the walls of the valley would close in over the train, that a tunnel would be inevitable, but then the locomotive began to gain speed and I heard the sound of brakes coming on. The valley opened up and an unforgettable panorama unfolded below the train on the north side as we rolled down the 13 miles of 1.05 per cent to Hornell. It was like slowly walking past a diorama done by a perfect artist and modelmaker.

Hornell, a division point with important shops, has profited through the years by being the junction between the main lines to Chicago and Buffalo. The train from Buffalo, also known as the *Erie Limited,* was waiting here for us and

Erie Railroad.

its coaches were added to our train. The Erie's Buffalo through passenger coach is an odd car with a section of about six comfortable coach seats in one end. In the middle is a kitchen and four table dining section while the other end has a small lounge. This dining car serves only between Buffalo and Hornell but because of its coach facilities, the car is run through.

All the way from Chicago the mail loading had delayed us at every station. By the time we left Hornell the train was 80 minutes late. I wanted to catch the Albany train of the Delaware & Hudson at Binghamton at 2:25. This was 117 miles away and it was already 12:40. The conductor on the division between Hornell and Binghamton, like all the others, was extremely courteous. He wired ahead to try to hold the D&H train for me. It was just a hope.

As we passed through the rocky hills along the Canesteo River I went into the diner. This river has flowed the wrong way through its V-shaped valley ever since the glaciers reversed it by building up a dam across its former outlet.

The menu offered turkey, roast beef, ham, and other dishes and I found the roast beef quite good. Across the table was an oil engineer from Wellsville who told me about some of the early plans of the Erie Railroad. You may remember that in the first part of the last century there was a movement westward which resulted eventually in the construction of the Erie Canal from the Hudson River to Lake Erie across the plains of upper New York. While this route was superior in that no high ridges had to be crossed, the long boat ride up the Hudson from New York City to Albany made the route rather long compared to a diagonal route. So in 1832 promoters conceived the idea of a competitive Erie Railroad to go directly to Lake Erie, reaching it at Dunkirk, west of Buffalo.

From the outset the New York & Erie Railroad, as it was officially named, met with all kinds of difficulties. It was banned from passing through New Jersey, so had to make a terminal at Piermont, a few miles north on the Hudson. This terminal difficulty was later corrected, but the road's entire route was through a country little developed as compared to the Mohawk

C. George Krumm.

**The view up the river just east of Susquehanna, Pa., is rightfully the most famous on the line. Since this picture was taken the D&H has built a wye alongside its main line in the valley below to turn pusher engines used on its southbound trains. Above: The Erie Limited speeding along the Delaware near Hales Eddy, N. Y. This section is replete with reverse curves.**

Valley and other points served by the Erie Canal and the railroads which soon paralleled it. This difficulty couldn't be corrected.

Dunkirk was intended to be the big city on Lake Erie, but this also did not come about, for Dunkirk had only the Erie Railroad while Buffalo was a crossroads for rivers, canals, highways and railroads.

The Erie struggled with its six-foot gauge and hilly summits for years and years, gradually making improvements. Its wayside towns grew, some of them into cities. Only recently out of all its history has the Erie paid its stockholders a dividend.

But don't consider the Erie a weak sister today. Erie has ironed out most of its bottlenecks. Its feeder cities are prospering. Its life line is coming of age.

Before this trip about all I knew of the Erie was what I read in TRAINS and in history books. I knew it was a big road but didn't realize until I rode the line how folksy it was. People all along the route told me how slow it was, how rough it rode, and yet there was no mistaking one point. Every one of the Erie's customers has a respect, almost a love for the railroad that serves his home country. There is no complaining in what they say, for Erie courtesy and service make up for bumpy track and slow trains. Erie is the only life line for thousands and thousands of people . . . they know it and respect it.

Our car, as I mentioned before, was for long distance passengers. It was nearly empty by the time we reached Corning, but then picked up more and more until it was full again at Port Jervis. After riding for miles with people, talking with them, and getting to know their faces, I felt a kind of coldness as they left the car at their stations and other strange new faces occupied their seats.

The train passed down a street to the station in Corning, the city where glass is all important. There's a movie theater on one side of the street and a bowling alley on the other. The towns in this part of the country have very few brick buildings. Most of them are old frame houses with at least one and sometimes several lean-to rooms added after their original construction.

After having made dozens of maps of this region I was fairly familiar with the order of the towns, the watersheds, hills, and railroad routes, but one thing struck me almost as a surprise. All the distances seemed to be about twice as far in real life as I had visualized them in making maps.

We seemed to rush from town to town as we followed the Chemung and the Susquehanna Rivers. At Elmira many passengers got on at the recently elevated station. Waverly was just a few feet from the state line. Owego . . . Endicott . . . Binghamton. I looked at the empty track where my D&H train had departed more than an hour before and went into the station to have my ticket extended to Jersey City.

The next part of the journey contained some of the finest window music of any eastern rail-

road. To the south was the ever-narrowing valley of the Susquehanna and across it I saw a slow-moving coal train on the Lackawanna that was like a miniature, it was so far away. At Susquehanna, the railroad dips into Pennsylvania again. West of the town is a yard where engines take on fuel and water for the big climb over Gulf Summit. The train crossed the river and pulled up to a brick railroad station as old as it is quaint. It must have been a railroad hotel in the old days for the building has many second floor rooms, each with a small window. The telegraph bays are also on the second floor.

The town is laid out partly on the hillsides and partly in the valley of the river. Here the Erie maintains shops for cars and Diesel equipment. Eastward we crossed a high viaduct over a narrow ravine, then in a short distance, hardly out of the town, the branch to Scranton swung up the Starrucca Valley and our track crossed the valley on the famous viaduct of the same name. Underneath is the main line of the D&H which uses Erie tracks toward Scranton but has its own line on to Albany and Canadian points.

The railroads both bend to the north into New York State here, the D&H at river level and the Erie ever rising along the east slopes. This nine-mile 1.36-per cent grade is the steepest on the route. The others are mostly one per cent. After several minutes climbing we turned eastward and that most famous view (shown on page 18) unfolded up the Susquehanna Valley. Everything was covered with whipped-cream-like snow that day and it was just as beautiful then as in early summer or with the autumn leaves. A big rock cut wiped the scene away just too soon as though a movie director were in charge.

Still climbing, we flanked a bowl-shaped valley girded by round hills with GI haircuts and filled with quaint farms and a little one track road that snaked between fences, an excellent trecking place for railroad minded camera fans.

A long rock cut almost as dark as a tunnel marked Gulf Summit, 1374 feet above sea level, the last, but one of the big hills on the line. Long icicles lined the walls of rock as though one were passing through a limestone grotto.

After the scenes just passed anything else might have seemed an anticlimax, but not the wonderful variety in the next few miles. We were soon rushing along the Delaware River in a V-shaped valley 90 miles long. The river and the railroad turn left and right many times and at each turn a gorgeous view is framed.

The train was filled to more than capacity when we reached Port Jervis. The flagman muttered something about wishing we had another car but he knew there couldn't be any. A cleaning lady said she thought one would be put on. It was, but way at the back of the train behind the diner and Pullman cars. The flagman muttered again.

The Delaware reaches a 400-foot wall of rock at Port Jervis and turns southwest to follow along it. But the Erie Railroad, which is at the river level, turns northward to climb the escarpment. For 11 miles the railroad is cut into the side of this slope. To reduce grades there are two newer freight tracks at a lower level than the old double-track main.

This old line cuts across the last few feet of the summit but the freight line pierces through by a tunnel almost directly below, saving it more than 100 feet of climbing.

Middletown . . . Goshen . . . Tuxedo . . . then through a snakelike passage between massive piles of rocks covered with evergreen trees to Suffern . . . Patterson . . . Pasaic . . . the meadows, a great desert of unused flat land crisscrossed in every direction by railroad lines. . . . Bergen Hill. . . . The track drops down on a steel viaduct and slips through the Jersey City interlocking plant. We pulled to a stop at the platform of track 12.

The terminal is of stub pattern similar to all the Jersey City and Hoboken terminals. To the north are car slips for the barges that ferry freight cars to Long Island and Bronx terminals. In the center is a very old wooden waiting room, and at the south are the slips for passenger ferries to Chambers Street on Manhattan. Halfway down every platform is an entrance to the Hudson & Manhattan tube. This is a great convenience for Erie's many suburban passengers.

Part of the Jersey terminal is located on piles which have sunk into the mud a bit so that at high tide the tail of track 12 is below salt water. Several days later I watched a Susquehanna Diesel locomotive carefully wade into the water while making a switching move.

I took my suitcase and walked out to the front of the ferry boat to see one of the finest views in America, the Manhattan skyline from a Jersey ferryboat.

**Approaching Jersey City, the Erie cuts through Bergen Hill and then drops to the bank of the Hudson River on the steel viaduct shown in the distance. The lower picture shows the view of Manhattan from Erie's Weehawken freight docks.**

Erie Railroad.

Erie Railroad.

# Schedules Don't Just Happen

**Meal times, especially breakfast time, and the arrival time for the U. S. mails, set limits for timetables**

BY JOHN F. BOOSE

*Have* you ever wondered, in looking over a train schedule, why trains run when they do, and not at some other time of day?

The reasons are various, each depending upon a particular type of train. Passenger trains, the general concern here, fall roughly into three general classifications: overnight trains, primarily for sleeping car, mail and express movements between important cities; fast daytime fliers; and local or accommodation trains, which also handle mail and express. A fourth classification might be the solid mail and express trains, but they usually do not carry passengers.

Let us see what factors influence these three general types of trains.

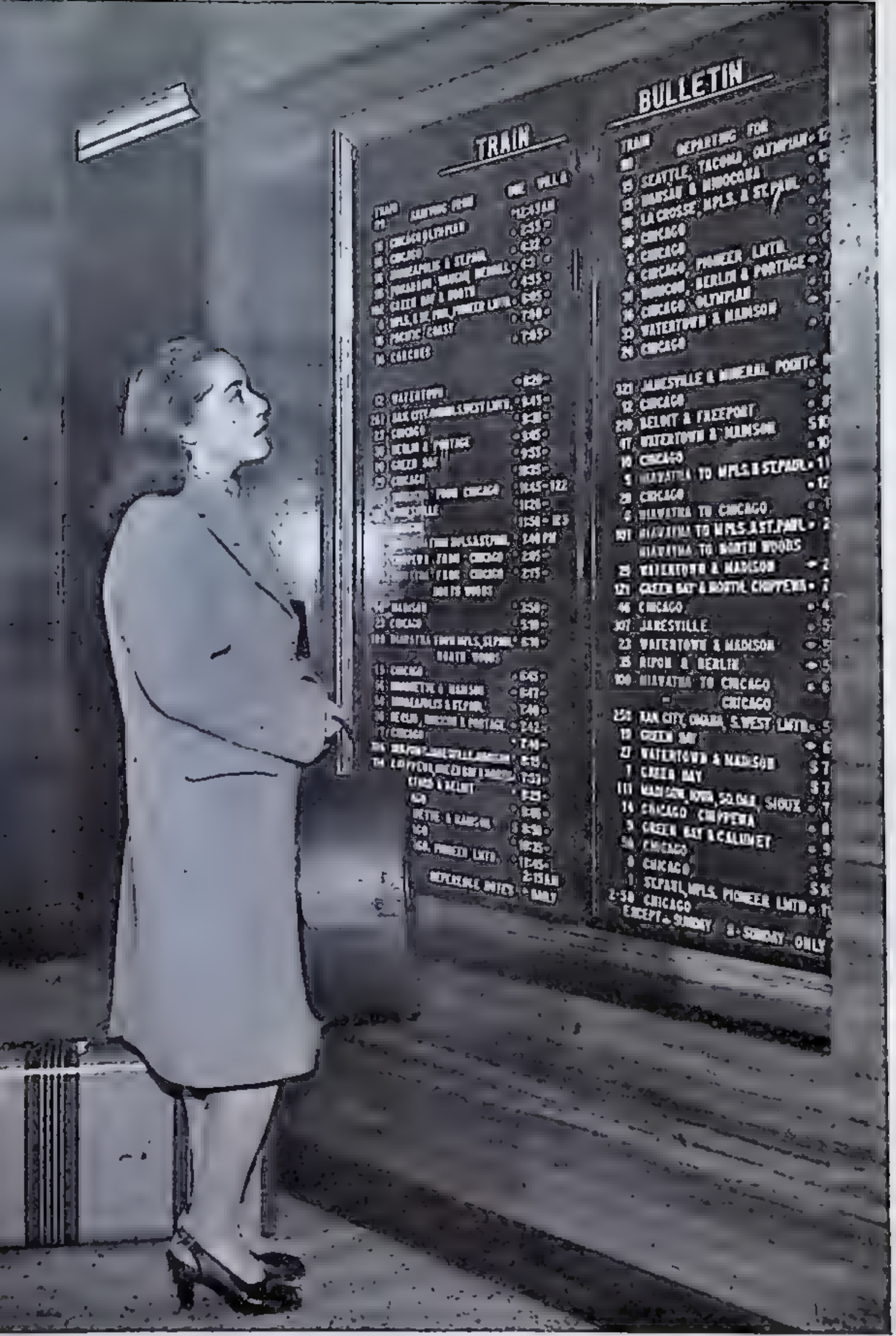
The overnight trains, for instance, are timed not as much for departure's sake as for arrival. They follow the general rule that overnight through passengers should arrive at or near a time convenient for morning business at their destination. Hence most overnight trains are timed to arrive in the relatively larger cities somewhere between 7 and 8:30 a.m., and somewhat earlier in the smaller terminals. When, however, there is only one train of this type on a given run, a compromise must be made with the arrival time of the U. S. mail, which has to reach the post offices early enough to provide an hour and a half for sorting and casing of an early morning delivery.

Almost any timetable will furnish good examples of these trains. Look through any Chicago & North Western folder. The North Western operates a total of nine lines with overnight through service, seven of them out of Chicago. On the Chicago-Twin Cities run, for instance, two solid through trains leave Chicago every evening, the *Victory* at 9:45 p.m. and the *North Western Limited* at 11 p.m. The *Limited* runs via Milwaukee, picking up a Milwaukee-Twin Cities sleeper (open for occupancy several hours before departure), and arrives in Minneapolis very conveniently at 8:35 a.m., thus allowing time for an unhurried breakfast in its limousine café lounge before going about one's business. The *Victory*, running via Madison, arrives in Minneapolis at 8:15 a.m., having stopped at Altoona to pick up a Madison-Twin Cities sleeper which had left Madison on the earlier *Duluth-Superior Limited* to gather up passengers at Lodi, Baraboo, Reedsburg and Elroy. These passengers were spared the wait for the *Victory*, which makes its Madison stop at 12:40 a.m., and had instead a chance at uninterrupted sleep during the three-hour standstill at Altoona near Eau Claire.

The North Western carries no great amount of mail between Chicago and the Twin Cities, since the rival Milwaukee Road holds the contract haul between those points. This makes any too-early-for-passengers arrival in the Twin Cities unnecessary.

On two other North Western overnight lines, however, the mail is a primary consideration. Take a look at the schedule of No. 161, the familiar *Iron and Copper Country Express*. Leaving Chicago at the dinner hour, 6:30 p.m., she makes a leisurely overnight run up the west shore of Lake Michigan to the busy cities of the Upper Peninsula, and especially the iron country. The *Express* arrives at Negaunee at 6:15 a.m., and at Ishpeming at 6:45 a.m., with a Duluth, South Shore & Atlantic connection at Negaunee for Marquette at 7:40 a.m.

Likewise on the Omaha Road's Twin Cities-Omaha line, the *Nightingale* leaves Minneapolis at 8:45 p.m. and arrives with the mail at Omaha at 8:05 a.m.—but the road considerately permits passengers to catch an extra 40 winks before they must vacate the sleepers. If one happens to be going to Sioux City instead, he will do better to take the later *Mondamin* at 10:15 p.m., since then he won't have to be tossed off at his destination with the mail at 4:50 a.m., as he would have been on the *Nightingale*. The *Mondamin* is primarily for Sioux City and Sioux Falls




John Taylor Co., Milwaukee, Wis.

passengers, while the *Nightingale* is for the Omaha and Council Bluffs passengers.

So much for the overnight trains, and now for the fast daytime express category. Here come such famous names as the Rock Island's *Rockets*, the Burlington's *Zephyrs*, the Milwaukee's *Hiawathas*, the SP's *Daylights*, the Pennsy's Detroit-Chicago *Arrows*, New York Central's *Mercury*, *Empire State* and *James Whitcomb Riley*, and a host of trains that make history daily as they flash across the continent, carrying passengers primarily and, as a rule, caring little for baggage, express or mail. They simply can't afford to spend the time loading and unloading these commodities—this time the passengers must go through!

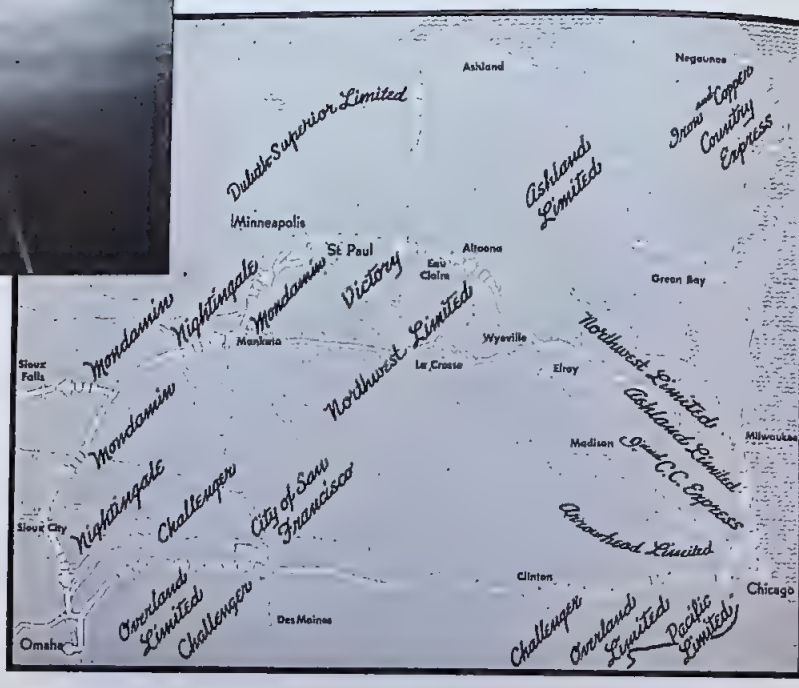
Most of the passengers are businessmen or shoppers, so naturally the schedules are out to fit business needs. Pick up almost any timetable, and notice how closely departure hours fit business hours. Here it is not the arrival time that matters so much as does the business of concluding the day's affairs and getting home. Rather than spend an unnecessary night away from home, the average American would sacrifice a little of his business time, if need be, in order to get home by night.

Outstanding among departure times of daylight hotshots are the periods from noon to 1:30 p.m. (finishing a half-day's work) and from 4 to 6 p.m., the end of a full business day. Pick up a Milwaukee Road timetable and note how not only the main terminals, but important intermediate cities as well, are amply supplied with these fast daytime businessmen's trains.

Passing up the more familiar *Hiawathas* for the moment, let's take a look at a couple of less-known day trains, the northbound *Chippewa*, for example. She leaves Chicago at a very good noonday hour, 12:45 p.m. After distributing passengers at Milwaukee, Plymouth, Elkhart Lake, Chilton and Hilbert, she arrives at Green Bay, an important business center north of Milwaukee, at an excellent time for business people and shoppers living near Green Bay to start homeward at 4:48 p.m. Her schedule from there on is dotted with pauses all the way to her night's resting place on the shores of Lake Superior at Ontonagon, Mich. Southbound, she leaves Ontonagon at 11:20 a.m. and reaches Green Bay in time to fill the late afternoon spot at 5:20 p.m. for the list of towns down to Milwaukee, and then on to Chicago.

The *North Woods Hiawatha* serves the populous Wisconsin Valley. Connecting at New Lisbon with its Chicago-Twin Cities prototypes, though often in the summer running straight through to and from Chicago, it brings noonday passengers out of Chicago to the busy little cities of Portage, Wisconsin Rapids, Wausau, and Merrill, not forgetting a 5:32 p.m. load northbound from Wisconsin Rapids. Southbound, the *Hia-*

J. A. Crawford.




**As dawn comes to the Midwest, the C&NW's fleet of overnight trains is approaching terminals, timed either for very early arrival of the U.S. mails or for breakfast time arrival of passengers. The map shows the position and direction of important overnight trains on North Western main lines at about 6 a.m. Trains which carry large amounts of mail, such as the Pacific Limited, are closest to their arrival at this hour.**

*wathas* leave Minocqua at 10:50 a.m., making possible a noonday stop at both Merrill and Wausau and also connecting at New Lisbon with the similarly noon-departing *Hiawathas* from the Twin Cities.

Even as distant a center as Mason City, Ia., gets a strictly business train, the *Marquette,* with its nicely timed 12:01 departure from Mason City for Charles City, New Hampton, Postville, and Marquette, and a late afternoon (4:55 p.m.) stop at Madison, Wis., for passengers to Chicago.

And, of course, for the three mainline *Hiawathas,* morning and afternoon (though really noon) from both Chicago and the Twin Cities, and noon from Chicago and Omaha, the road carefully seeks out important intermediate cities to favor with well timed departures. Westbound, La Crosse and Winona have late afternoon spots on the *Afternoon Hiawatha* schedule; eastbound, Portage and Watertown receive these favors. Portage and Milwaukee both get noon spots on the *Morning Hiawatha,* both eastbound and westbound.

The newer and less well known, but just as speedy, *Midwest Hiawatha* hits the late afternoon spot westbound at Marion, Ia., with a close connection from Cedar Rapids, and the dinner-hour spot at Madrid with a similar connection from Des Moines. Eastbound, it's Dubuque and Rockford, also via connections, that are favored with fast service into Chicago. The Iowa and the Dubuque & Illinois division main lines seem to have missed passing through most of the important towns, perhaps in the interest of short line mileage, but the towns still get excellent connections.

*The Alton* card between Chicago and St. Louis is fairly running over with trains departing at noon and in the late afternoon. The *Alton Limited* fills the noon spot south out of Chicago and north out of St. Louis, while the newer and faster *Abraham Lincoln* and *Ann Rutledge* fill the other end of the schedule at various spots. Even the northbound *Prairie State Express* has a definite purpose—the 5:05 p.m. spot north out of Springfield. A catch-phrase made popular some years ago by the Alton advertising department puts it aptly: "An Alton train ready when you are."

Wherever one looks over the timetables, fast daytime highliners still choose these favored spots. Watch the flurry of New York Central activity out of the Indianapolis Union Station at these two periods: the *White City Special* for Chicago at 1:25 p.m. and the *Cincinnati Special* for Cincinnati at 2:15 p.m.; the *Southwestern Limited* for Cleveland and New York, also at 2:15 p.m.; the popular *Sycamore* for Chicago at

4:50 p.m., and the westbound *Cleveland-St. Louis Special* at 5:40 p.m.; the Cincinnati-bound *Queen City Special* and the *Knickerbocker* for the east, both at 6 p.m.

The Central is not the only road keeping the Indianapolis terminal tracks humming around these times of day. Witness these departures: the Pennsy's *American* eastbound for Pittsburgh and New York at 1:46 p.m., with its westbound partner for St. Louis at 12:08 p.m.; the all-Pullman *Spirit of St. Louis* eastward at 5 p.m., closely followed by the all-coach luxury-liner *Jeffersonian* at 5:08 p.m. and, westbound, No. 11 at 5:20 p.m. The Chicago and Louisville line also carries a full complement of noon and late-afternoon trains.

Almost any large terminal presents the same picture. Visit the stations at Chicago, St. Louis, Kansas City, Cleveland, Cincinnati, Pittsburgh, Detroit or Buffalo, and watch how the daytime highliners group around these spots.

How about the third class of trains—the local or accommodation type? Until about 15 years ago, this type of train was quite as common on schedules as were the overnight flier or the daytime express. With increased motor travel in bus or private car, the locals have decreased in both numbers and popularity until they are almost nonexistent today. The few that remain have as their primary purpose the providing of local service to those communities too small to warrant a pause by the high-speed hotshots that race through them. One good example is a Wabash train out of Chicago, following 35 minutes behind the 4:50 p.m. St. Louis-bound *Bluebird*. Partially replacing the fairly complete suburban service which the Wabash used to run out of Chicago (discontinued in 1935), the present train stops at practically every hamlet all the way to Decatur, more than half the way to St. Louis, and returns in the same way the next morning.

Another road which still uses locals to some extent is the North Western. The formerly speedy *Viking* on the Chicago-Madison-Twin Cities run is now a train of this type, affording local service to the small communities between Madison and the Twin Cities, replacing a recently discontinued Chicago-Elroy local.

As far as possible, these trains follow the same general rules as the speedier daytime fliers for noon and late afternoon departures from important terminals and intermediate cities. The *Viking* hits the noon spot at Madison and the late afternoon spot at Eau Claire westbound; eastbound, she makes Eau Claire in the late morning and Madison in the late afternoon. Through passengers for Chicago and for a few intermediate spots, Janesville, Beloit, Harvard, and Woodstock, are privileged to change at Madison to the faster *Capitol 400* on the last leg of its triangular Chicago-Milwaukee-Madison-Chicago trip, and thus arrive somewhat earlier than the slower *Viking*, which follows at a respectful distance.

Even the oft-pounded rails of the Chicago-Omaha line, carrying streamliners and conventional fliers, have one out-and-out accommodation train, No. 15, which makes a limited number of stops as far as Clinton, Ia., and then serves every little community on the rest of the 350 miles to Omaha.

Most of the roads whose little communities cannot supply enough business to support even one straight accommodation local on a given main line, still cater to whatever business there is through the long-maintained policy of conditional stops. Since the general discontinuance of mainline locals, these stops have increased in number until now extremely few mainline trains, except advertised nonstop specials, fail to make at least some conditional stops. Even the famous *Twentieth Century Limited* of the New York Central makes a few of these, and the passengers, so accommodated, pay well for their special privilege!

The final class of trains to be considered is the contract-haul mail group, usually confined to one or two each way between important cities on transcontinental routes, and usually on only one road. Such trains are the *Fast Mails* of the Burlington, remembered by students of rail lore as the subject of bitter competition some 35 or 40 years ago when, night after night, the North Western would race its high-wheeled Atlantics against those of the Burlington from Chicago to Omaha for the valuable mail contract. The Burlington still holds the contract, and nightly No. 7 makes its run with the mail. No. 7 won't be found on any passenger card, because there aren't any passengers. Between Chicago and the Twin Cities, the Milwaukee Road holds the contract, with its *Fast Mail*, No. 57, leaving Chicago at 9 each night, also with no passengers. Eastbound, however, No. 56 carries a full complement of passenger accommodations, even to a café-parlor car from the Twin Cities to La Crosse, but the schedule is still arranged for convenience of the post office, not passengers, with a 6:30 a.m. arrival in Chicago.

Lucius Beebe.

*Bellefonte Central Near State College, Pa.*

C. M. Clegg

## The Chief Climbing Raton

## On the Virginia & Truckee

**These representative photographs make a much more expressive review of Lucius Beebe's new book "Highball" than could mere words. The volume ($6, Appleton-Century) is outstanding in its photographic display of railroad action, outstanding also in the attention given to the small roads as well as to the big ones.**

C. M. Clegg.

# The Green Mountain Route

**The Rutland is a bit of New England joining through rail routes between Boston, New York, and Montreal**

BY FREDERICK C. THORNE, M.D.

The Rutland Railroad is as much a part of life in western Vermont as the cracker barrel philosophers who gather around the coal stoves in local stations and the farmers who watch the milk express double-head through the Berkshires at sunset every day. Its operations are a source of unending interest for anyone who enjoys the local color of a small but busy trunk line. Part of the Rutland's charm lies in the informal friendliness of the operating employees, usually native Vermonters, who are always glad to chat a few minutes with a genuine cordiality that is rare on larger roads. More important is the service it provides on 407 miles of single-track line in western Vermont and northern New York, for cities and towns depend on this railroad to take their products and citizenry to Montreal, New York, and Boston.

The railroad itself, however, depends for 80 per cent of its revenue on the freight and passengers it gets from its connections. Vermont is a little state, where the industries are small though varied; its people live in modest towns that give the uncrowded feeling of country. Thus the Rutland is primarily a bridge line between Canadian and New York-New England points, although competition for this traffic has caused it to be a losing proposition for many years.

Paralleling the Rutland route up to Montreal is the Delaware & Hudson, on the west side of Lake Champlain. The Central Vermont, owned by Canadian National, moves from Montreal across Vermont to connect with the Boston & Maine, serving cities in central Vermont like Barre, Waterbury, and Brattleboro, and the capital city of Montpelier. It also takes in Alburgh, Burlington, and Rouses Point on the Rutland route. A third railroad through Vermont is the Boston & Maine, which follows the Connecticut River up the eastern edge into Woodsville, where the Canadian Pacific takes over into Canada. Although the Rutland is the only railroad serving Bennington, a fairly large city, this is not on the main line and only freight is delivered here. Outside of this, the road's only exclusive service is to the towns with populations of less than 5000 that line its route through Vermont and northern New York.

The history of this road begins with the Champlain & Connecticut River Railroad, incorporated on November 1, 1843. Construction did not start until 1847, and in that year the name was changed to the Rutland & Burlington Railroad. This line, which ran from Bellows Falls to Burlington, began operations on December 18, 1849. Since Burlington was then one of the largest lumbering centers in the east, there had been keen competition between the Vermont Central (now Central Vermont) and the Rutland & Burlington to reach the city first with a train from Boston. The Rutland won by a scant two weeks. Typical of excitement along the line in that period is this report from the *Bellows Falls Times* of January 14, 1850:

"The engine came up in grand style, and when opposite our village the Monster gave one of its most savage yells, frightening men, women, and children considerably and bringing forth deafening howls from all the dogs in the neighborhood."

In promoting its "lakes to Boston" traffic, the Rutland at first used boats from Burlington to Rouses Point until the Vermont & Canada built a connection to Burlington in 1860. In 1853 as many as 22,000 tons of freight came down from the boat connection over the Rutland & Burlington. Later a steamer, the Oakes Ames, carried freight cars from Burlington across the lake to Plattsburg. At Plattsburg the boat made connections with the Rutland-Ogdensburg & Lake Champlain Railroad into Canada. Winter ice blocked the steamer, however, so that the Rutland (now officially the Rutland Railroad)

H. W. Pontin.

**Milk is one of the primary commodities handled by the Rutland, for its territory is the dairy center of New England. Here Ten-Wheeler No. 57 starts a milk express from Brandon, Vt., north of Rutland, while below another Ten-Wheeler is taking the milk express away from Alburgh, 90 miles farther north.**

H. W. Pontin.

built a 14-mile branch across the narrows of Lake Champlain. As the directors made plans to build more track to connect with the Plattsburg & Montreal, the Vermont Central decided to stop competition. It leased the Ogdensburg & Lake Champlain in 1870, which meant that the Rutland had no entry into Montreal. In that year the Rutland itself was leased to the Vermont Central for a 20-year period at a high rental of $376,000 per year. Some authorities say that Vermont Central was willing to pay this price to stop the Rutland from expanding; others, that the Rutland had misrepresented its earning power.

When the Central Vermont went into receivership in 1896 the Rutland again became an independent railroad. In the period of rapid expansion that followed, the Rutland stretched north and south, for progress toward Boston was blocked by the competing Boston & Maine Railroad. Most important acquisition was the Rutland & Canadian Railroad newly constructed across the islands of Lake Champlain from Burlington to the Canadian Line and to Rouses Point. In 1901 the Rutland purchased over 50 miles of line to the south, the Chatham & Lebanon Railroad. The company also had ships plying between Great Lakes ports and Ogdensburg. This was how the Rutland grew into the odd inverted Y-L shape as seen on a map.

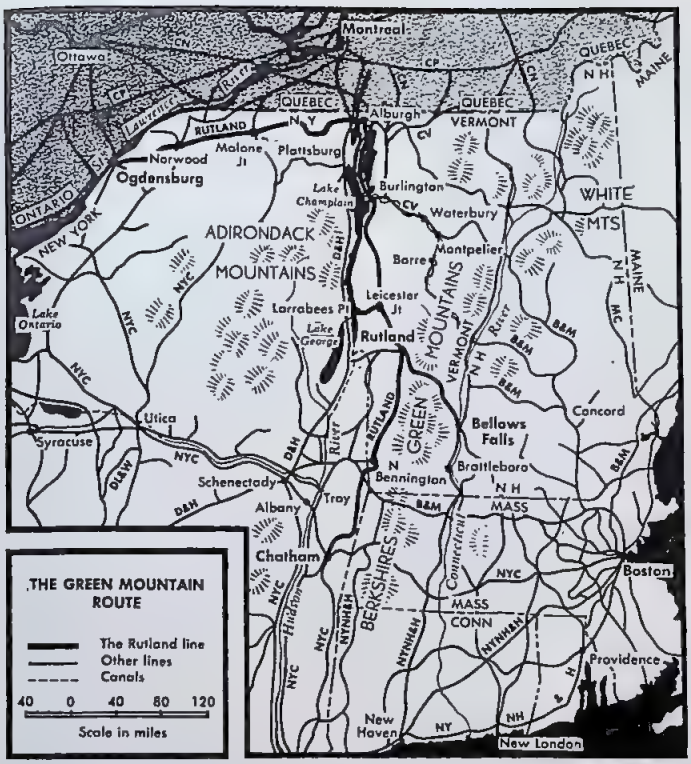
In 1905 the New York Central purchased a majority of Rutland preferred voting stock, and the Rutland once more became part of a larger system. This meant a through short route to Montreal for the New York Central and an alternate route for its east-west freight business which would relieve mainline overloading. Another large system, the New Haven, became interested in the Green Mountain route too. This road bought one half of the New York Central's interest in 1911 and attempted to trade interests in the New York, Ontario & Western (an NYC competitor) for the other half. Action by the Rutland's minority stockholders prevented this, however, and until 1941 the two systems together owned 52 per cent of Rutland stock. Finally they sold their preferred stock to private interests. Since 1917 the Rutland has had an agreement with Canadian National Railways through which passenger trains may operate from Rouses Point to Montreal over Canadian National lines.

As today constituted, the main line extends 159 miles from White Creek to Alburgh, Vt., where through passenger trains branched off to Montreal via Nyan Junction until 1917. Now they run over the CNR from Rouses Point, N. Y., to the new terminal in Montreal. The Ogdensburg subdivision comprises 120.5 miles from Alburgh, Vt., to Ogdensburg, N. Y. It provides local passenger and freight service and forms a part of the route for through freight service. The short section of 37 miles from Norwood to Malone Junction is also used by the New York Central freights to Montreal because of its more favorable grades. The Bellows Falls subdivision consists of 52.5 miles of heavily graded line running across the Green Mountains of Vermont from Rutland to Bellows Falls, where connections are made with the Boston & Maine to eastern New England points. Two through passenger trains, the *Mount Royal* and the *Green Mountain Flyer*, go from Montreal to Boston daily.

Sixty-two miles of freight route from North Bennington, Vt., to Chatham, N. Y., make up

Raymond C. Henry.

**The Green Mountain Flyer, with milk cars on the head end, is shown getting under way from North Bennington, Vt., while below is a fast freight near Chatham, N. Y., where the Rutland joins New York Central and Boston & Albany.**




the Chatham subdivision. At Chatham, connections are made with the New York Central and the Boston & Albany. This subdivision runs through the unspoiled beauty of the northern Berkshires, some of the most scenic country in New England, but as a result is handicapped by heavy grades and sharp curves.

A vignette of the past is to be found in the operation of the Addison subdivision, a short (13.4-mile) branch from Leicester Junction to Larrabees Point, where a wooden trestle formerly carried short mixed trains over Lake Champlain to make connections with the Delaware & Hudson at Ticonderoga, N. Y. This trestle across the open lake included a most unusual railroad bridge. With typical Vermont ingenuity the Rutland placed a long wooden barge in the middle of the channel used by lake boats. It was hinged at one end of the trestle and could be pulled open to permit passage of boats. Trains ran onto the barge over long aprons which compensated for changes in water level of as much as six or eight feet. Once the barge capsized and deposited several cars on the bottom of the lake.

In winter months bridge tenders chopped ice away from the sides of the barge to keep it from freezing in. The lake crossing was abandoned in 1917 when the entire structure was condemned, for interline traffic did not justify construction of a new trestle and bridge. The Champlain bridge is gone, but a little mixed train usually with two milk cars, one or more freight cars, and old-time open end coach No. 223 runs slowly down the branch to pick up milk and some local freight. Until the summer of 1944 a tiny Mogul, No. 144 or 145, pulled this train which looks little different today than it did 40 years ago.

Although the entire route runs through truly beautiful country, the section from Burlington to Rouses Point is especially interesting because the railroad crosses Lake Champlain on a series of long rock fills through the scenic islands of the upper end of the lake. Operating conditions are particularly difficult over these fills in late fall or early spring, however. Then a high wind frequently blows freezing spray across the tracks until the roadbed becomes a solid sheet of ice, impassable before special ice-cutting equipment opens up the line.

All operations over the Rutland are controlled by the manual block system, except on the Addison subdivision and the territory between Ogdensburg and Norwood. At interline junction points and at bridges open to lake navigation are a few signals used to protect these critical points.

Wartime traffic was not so heavy on the Rutland as on larger trunk lines, for there were few war industries located along the line. However, the road is handicapped with old equipment which will soon need replacement. The motive power roster at present includes 60 engines, nearly all of them built over 25 years ago. In spite of their age, most Rutland engines are extremely well-proportioned and were the best of their kind when new. Through passenger service is maintained with photogenic Ten-Wheelers built about 1910, and six heavy Pacifics that resemble NYC equipment. For freight service the Rutland uses smaller Ten-

J. W. Hayes.

The branch from Leicester Junction is all that remains of a line which formerly crossed Lake Champlain to make connection with the Delaware & Hudson. To accommodate marine traffic a portion of the bridge was on barges, hinged at one end. Photo shows an accident on the span about 1917.

Wheelers built about 1910, 15 light Consolidations, and six light Mikados of USRA type obtained in World War I. One little Mogul remains from a class originally purchased from the Ogdensburg & Lake Champlain Railroad. The line owns about 1230 freight cars, 90 passenger cars, one dining car, and other equipment to total 1546 cars. On the *Mount Royal* and *Green Mountain Flyer* to New York reclining seat coaches are available. At present the wartime 450-mile limit has eliminated through Pullmans which the Rutland normally carries as part of New York-Montreal and Boston-Montreal overnight runs.

Milk traffic is one instance in which the Rutland territory is as important to the railroad as the railroad is to the territory. Every day train No. 88 collects a long string of milk cars all the way from northern New York to Rutland, where seven or eight are shunted over to Bellows Falls. Two 70 series Ten-Wheelers on express train schedule take as many as 20 cars to Chatham. Empties are picked up on the return trip for redistribution to the dairies. In 1942 milk revenues were $427,133, 14.4 per cent of total freight revenues, and milk was the most important single item carried. In the '20's milk hauls brought as much as $1,500,000 a year, for then 55 per cent of the milk revenue came from longer haul stations in northern New York. Now these sections are manufacturing their milk into condensed and evaporated milk, and the supply of fluid milk is obtained from shorter haul points. Truck competition caused the railroad to reduce its rates on milk, which also contributed to the decrease in revenue.

Anthracite and bituminous coal provide about 14 per cent of the railroad's income, too. Petroleum oils, refined gasoline, etc., are next in importance. None of these products originate on line, however. As a class, manufactures and miscellaneous traffic provides 49 per cent of freight revenues. Much of this comes from the small factories in Vermont that produce lumber products, woolen textiles, and mill products.

The territory around Rutland is known for its Carra-like marble and throughout western Vermont are small quarries for granite, slate, and lime. Cattle and horse raising is the predominant rural industry. While these small enterprises are essential to the communities, they contribute less than five per cent of railroad revenues. High taxes and interest obligations on its bonds, together with heavy competition for its through freight business, have made the Rutland's existence a struggle for many years.

The Rutland's first serious difficulties began when it was ordered to dispose of the Great Lakes steamship line which had served as a valuable feeder for grain and other shipments from the west to New England. The lake terminus and grain elevator at Ogdensburg had enabled it to build a profitable trunk line business. Another catastrophe occurred when the great flood of 1927 carried out many bridges and fills. Almost 300 of the railroad's 407 route miles had to be virtually rebuilt at a cost of about $600,000. Revenue losses at this time amounted to $315,000. Progressive losses of revenue marked the depression years until the railroad went into receivership in 1938. Bond interest was in default, and it appeared that the Rutland must discontinue operations unless it could drastically reduce operating expenses.

The period between 1937 and 1942 brought management-labor disputes on the Rutland which had national significance because of the basic issues involved. To reduce cash expenditures Federal District Court Judge Howe issued an order cutting wages of all employees on a sliding scale as of August 4, 1938. This action kept the railroad in operation but precipitated a long and bitter fight by the national brotherhoods to refute the legality of such an arbitrary wage reduction. *Railway Age* anticipated the court's action in an editorial entitled "How Much 'Purchasing Power' Does an Abandoned Railroad Provide?" It called the Rutland's predicament typical because about half of the Class I railroads failed to earn enough to cover their operating expenses in the first five months of 1938.

Shippers and townspeople in western Vermont formed the "Save the Rutland" Club that summer in protest to threats of abandonment, and sponsored a parade in Rutland. One citizen wrote to a local newspaper "I have not yet purchased my fuel for the coming winter. I am ready to be sold by a dealer who receives his product exclusively over the Rutland Railroad. Why don't we all do it?"

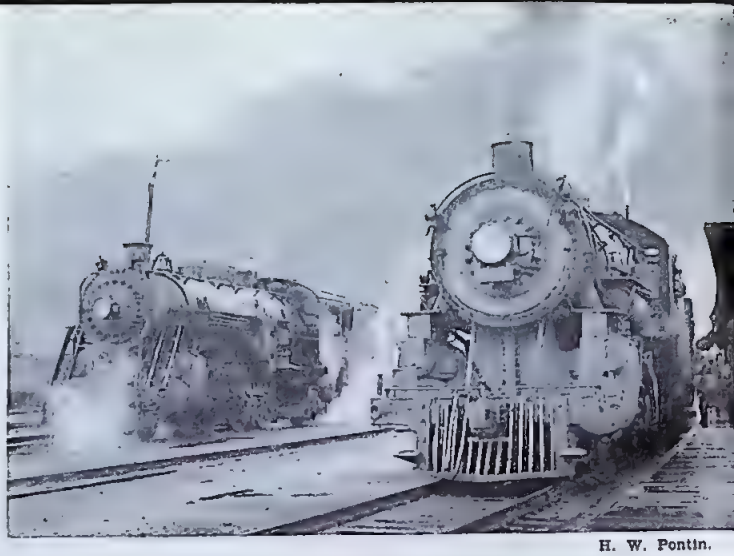
Although the local unions agreed to accept a wage reduction that amounted horizontally to approximately 17 per cent, the amounts omitted were set up on the books as a deferred liability to be paid out of net earnings. The deduction conserved cash, but did not reduce expenses. In 1940, the brotherhoods secured a decision from the U. S. Circuit Court of Appeals ordering the receiver to pay back the amounts withheld from employees' wages in installments, as operating revenue improvements warranted. The Rutland's receiver, L. G. Morphy, filed a petition in the District Court in June of that year, requesting further mediation proceedings because there were insufficient funds to comply with the order. The mediations did not produce a solution, however, and the receiver announced a wage cut of from 10 to 30 per cent on a sliding scale. The operating employees voted unanimously to strike in protest of any wage cut, but an agreement between the receiver and the brotherhoods postponed the strike until a further analysis of the financial situation could be made. This survey of the Rutland's property and management resulted in a recommendation that the company reduce operations to marginal levels, abandon part of the Addison branch, abolish unprofitable train

The appropriately named Green Mountain Flyer is shown above meeting a freight at Shaftsbury, Vt. Like much of the road's traffic the freight is pulled by a light Ten-Wheeler. Rutland's financial trouble is largely due to light traffic which makes running costs high per ton mile.

Above is a Mogul, scrapped in 1944, arriving at Leicester Junction with Addison Branch mixed train. Below the Green Mountain Flyer meets a freight at Bartonsville.

R. E. Tobey.

Bellows Falls, Vt., is a beautifully located village on the Connecticut River some 30 miles north of the Massachusetts boundary. It is a resort center and shipping point for dairy and farm products. It is also the junction point between Boston & Maine and Rutland to form one of the through Boston-Montreal lines. The station is a busy point when the Rutland engine backs onto the train and the B&M engine cuts off to run back to the house. The streamlined B&M Cheshire runs through here on its way to White River Junction 39 miles north. Rutland roundhouse at Bellows Falls is shown at far right.



H. W. Pontin.

service, and eliminate switching service at five points.

In spite of these economies, the Rutland continued to operate at a loss. In February, 1941, the former receiver issued a statement that the railroad could not meet fixed expenses without a general wage reduction. Orders were actually issued placing an embargo on the acceptance of freight consigned via the Rutland and shutting down railroad operations, when a last-minute executive order from President Roosevelt directed continuance of operations while an emergency board re-evaluated the situation. After these conferences the employees accepted a five per cent wage cut for two years, and the receiver withdrew his announcement of a 10 to 30 per cent wage cut. The state chamber of commerce and other interests promised to try to secure a lightening of the Rutland's tax burden.

A new receiver, William E. Nevin, paved the way for a reorganization of management which fortunately was reinforced by rising operating revenue during wartime prosperity. Freight and passenger traffic between New York and Canada increased tremendously. Under new management the Rutland has repaid all wages withheld from operating employees, secured an adjustment of unpaid taxes owed to the state of Vermont, obtained a reduction of assessed

## Locomotives of the Rutland Railroad

| Numbers | Class | Type | Driver diam. in. | Cylinder diam. and stroke, in. | Steam pressure lbs. | Tractive effort, lbs. | Date built* |
|---|---|---|---|---|---|---|---|
| 14-17 | G-34b | 2-8-0 | 63 | 22½x30 | 195 | 39,960 | 1910 |
| 18, 19, 20, 21, 23 | G-34a | 2-8-0 | 63 | 22½x30 | 195 | 39,960 | 1907 |
| 24, 25 | G-34c | 2-8-0 | 63 | 22½x30 | 195 | 39,960 | 1911 |
| 26-31 | G-34a | 2-8-0 | 63 | 22½x30 | 195 | 39,960 | 1913 |
| 32-37 | H-6a | 2-8-2 | 63 | 26x30 | 200 | 54,720 | 1918 |
| 40, 45, 48, 49 | F-12a | 4-6-0 | 69 | 20x26 | 200 | 25,620 | 1902 |
| 50-57 | F-11a | 4-6-0 | 63 | 21x26 | 200 | 30,940 | 1902 |
| 70-73 | F-2k | 4-6-0 | 69 | 22½x26 | 200 | 32,430 | 1910 |
| 74-79 | F-2j | 4-6-0 | 69 | 22½x26 | 200 | 32,430 | 1912 |
| 80-82 | K-1 | 4-6-2 | 69 | 25x28 | 200 | 43,100 | 1925 |
| 83-85 | K-2 | 4-6-2 | 73 | 25x28 | 215 | 43,800 | 1929 |
| 100, 101 | B-2a | 0-6-0 | 51 | 19x26 | 180 | 28,160 | 1913 |
| 103, 104 | B-9 | 0-6-0 | 51 | 18x24 | 180 | 23,330 | 1902 |
| 105 | B-2b | 0-6-0 | 51 | 19x26 | 180 | 28,160 | 1913 |
| 106 | B-2c | 0-6-0 | 51 | 20x26 | 180 | 31,200 | 1914 |
| 109, 110 | U-3 | 0-8-0 | 51 | 26x28 | 175 | 51,040 | 1918 |
| 144 | E-1d | 2-6-0 | 57 | 20x28 | 190 | 31,730 | 1900 |

* All locomotives built by Alco.

Richard H. Young.

valuations for taxation purposes, and established more cordial labor-management relations. By October, 1944, the railroad had accumulated $1,779,762.12 with which to face postwar problems. The Federal District Court has authorized payment of about $300,000 in defaulted bond interest and the purchase of four new dual purpose Mountain type locomotives.

These new locomotives may well show that the key to a great part of the Rutland's financial troubles has been inadequate motive power. After all, the use of two Ten-Wheelers to power a train which should be pulled by a Mountain type is one way to increase operating expenses.

The inner machinations of the Rutland's labor disputes probably will never be known but it seems likely that the railroad brotherhoods selected this as a test case to determine the legality of wage reduction orders. Evidence offered by labor committees of the operating brotherhoods suggested, on the other side, that the railroad was not managed with maximum efficiency during the period of contention. The management might deliberately have permitted abandonment of the road in protest against court refusal to permit wage reduction. Had the Rutland discontinued operations in 1941, connecting railroads probably would have quickly partitioned it among themselves, abandoned unprofitable sections, and continued operations on a limited basis. Vermonters feel they would have been seriously inconvenienced.

Most recent development in the long fight to make the Rutland a going concern is a plan to include it in a big co-operative system that may be developed as part of Vermont's reconversion program. Lester P. Barlow, originator of the plan, has filed his program with the I. C. C. and requested a reopening of the recent reorganization hearings. The plan proposes that farmers and other citizens of Vermont and certain other states form a co-operative corporation to take over the Rutland Railroad, grain ships and terminals on the Great Lakes, warehouses, elevators, and milk processing plants. The corporation would buy and sell commodities to its members and others without being subject to income tax. The railroad already owns two large rail and ship terminals on the Great Lakes at Chicago and Ogdensburg, N. Y. There are several large warehouses at the Chicago terminal and two warehouses and a modern concrete grain elevator of 500,000 bushel capacity at Ogdensburg. If shippers used the barge canal system from New York City to Rouses point, and lake steamers from Ogdensburg to Chicago, they would save shipping costs by using rail transportation for only 117 miles on the portage from Rouses Point to Ogdensburg. This use of Rutland facilities would increase the railroad's revenues too. It is believed that large grain and freight shipments would be secured also to the New England market served via the Rutland. This suggested route would have an advantage over the New York State Canal to the west in that open water lake shipping could be used for a greater proportion of the distance. As a differential route to the west the Rutland system might therefore do very well.

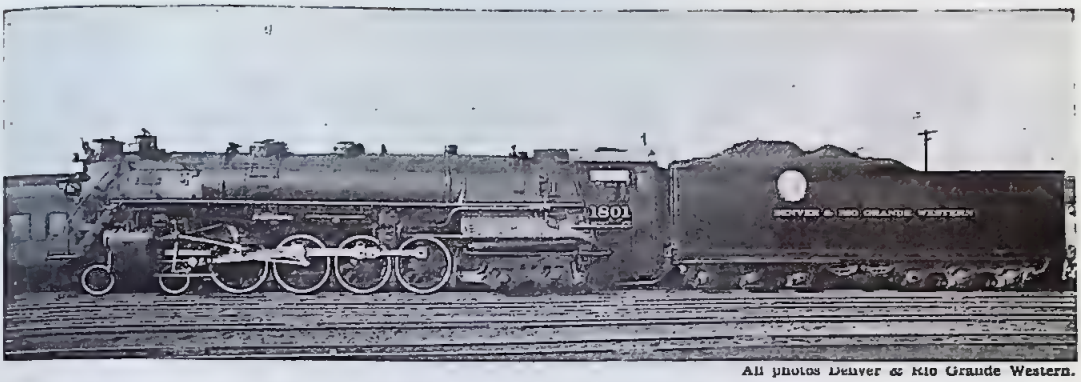
Another postwar possibility for the Rutland lies in the Bromley ski area just north of Manchester, on the Rutland route. If the revival of interest in skiing continues, winter passenger traffic to Bromley could bring in attractive revenues. Summer tourist trade has always been part of Vermont's income; railroad transportation through Vermont may again compete with automobiles and buses. At any rate, both the Rutland and Vermonters want to see the railroad a busy, independent line once more.

# D&RGW Motive Power

**Rio Grande uses 368 engines, including every variety from narrow gauge to freight Diesels**

One of the Rio Grande's Pacific type light passenger locomotives takes second No. 5, a special, westbound out of Bond, Colo., onto the Dotsero Cutoff of the Moffat Route, which is the newest of the transcontinental mainline routes.

G. L. Campbell, 1955 Holly St., Denver, Colo.

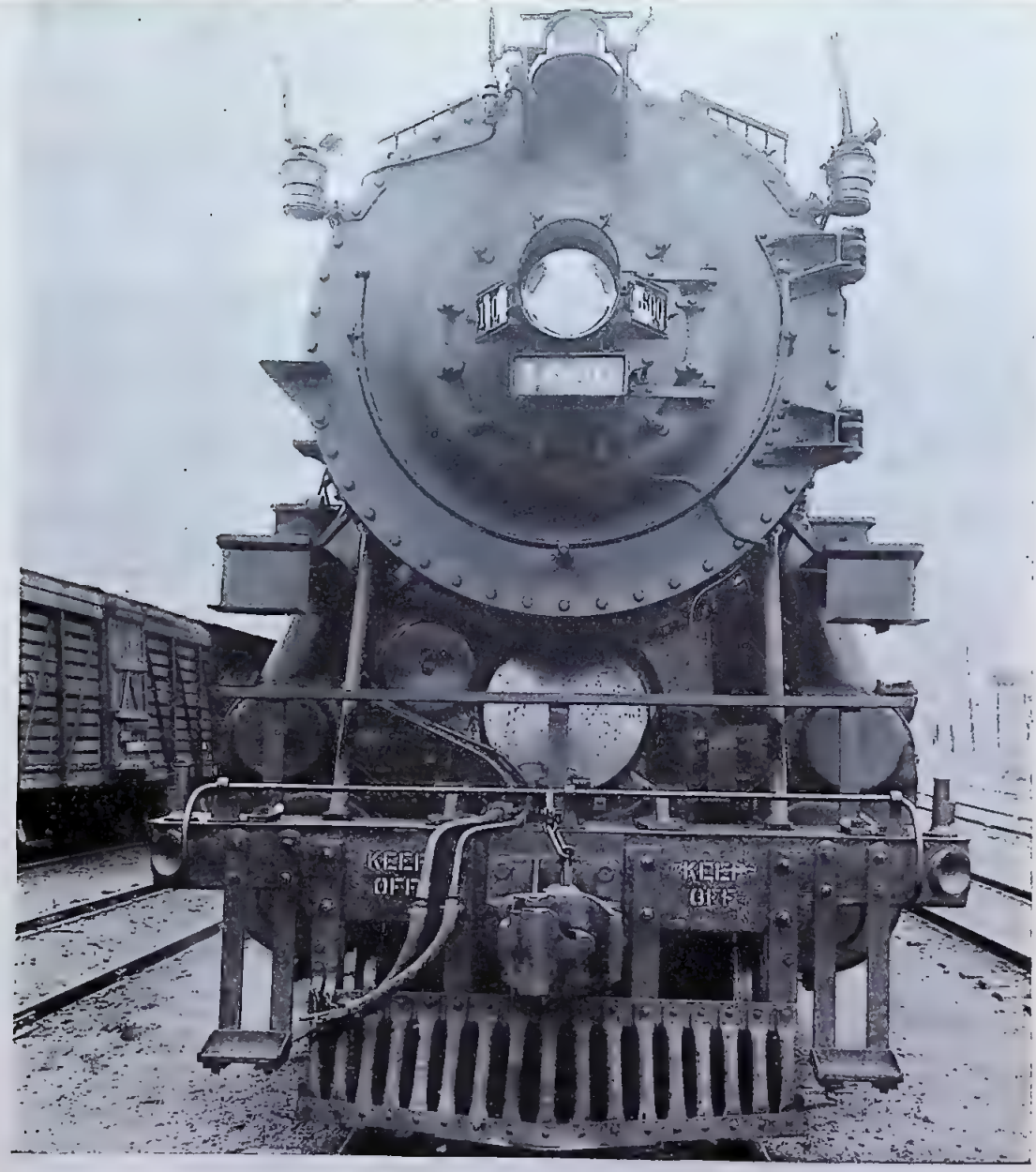



All photos Denver & Rio Grande Western.

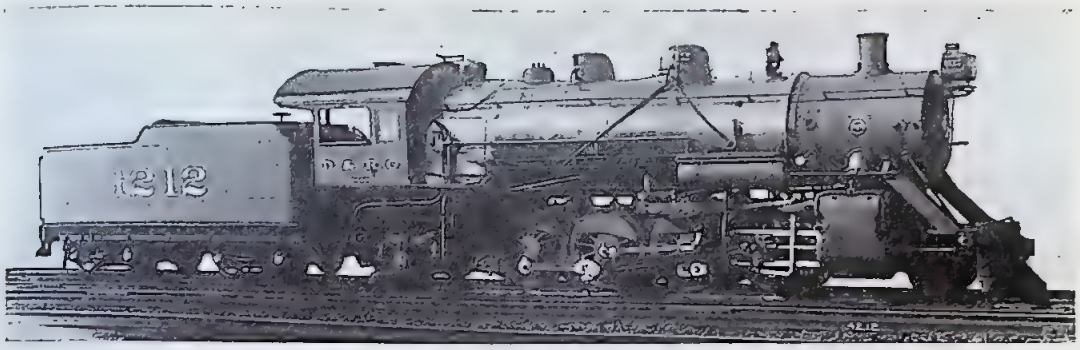
**M-68** The Rio Grande cuts boldly "through the Rockies, not around them," and naturally depends heavily upon large locomotives both for passenger and freight service. The five M-68 4-8-4 locomotives, built in 1938 by Baldwin, loaded weigh 873,360 pounds, exert 67,200 pounds tractive effort, have 73-inch drivers, 285-pound boiler pressure. Tenders hold 26-tons coal, 20,000-gallons water. Used for passenger trains.

**M-64** The 14 older, class M-64 Northerns, like the M-68's, are often run through from Denver to Salt Lake City, 745 miles. They weigh 696,750 pounds loaded, exert 63,700 pounds tractive effort, and were built in 1929 by Baldwin. Rio Grande classifies engines by initial for type and adds figure for tractive effort.

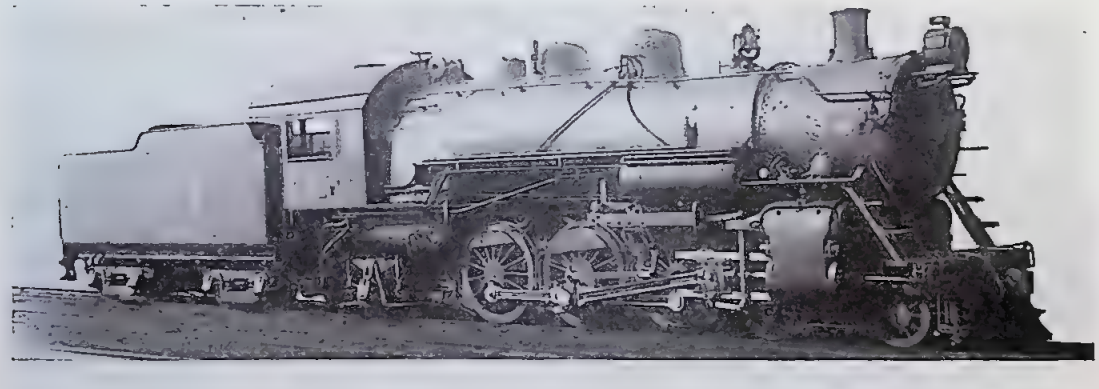
**M-67** Earlier M series engines on the Rio Grande were 4-8-2 (Mountain) type rather than 4-8-4 (Northern). M-67 was first of the breed. Thirty locomotives of this class were built in 1922 and 1923 by American. Tractive effort is 66,640 pounds. Ten, class M-78, have booster, raising tractive effort to 78,967 pounds.



**M-75** The nine M-75 4-8-2 locomotives built in 1926 by Baldwin are the only three cylinder engines on the Rio Grande. They have 74,970 pounds tractive effort. Head on photo shows the arrangement of center cylinder. This cylinder drives a crank on the second driving axle. These 4-8-2's are general utility engines.

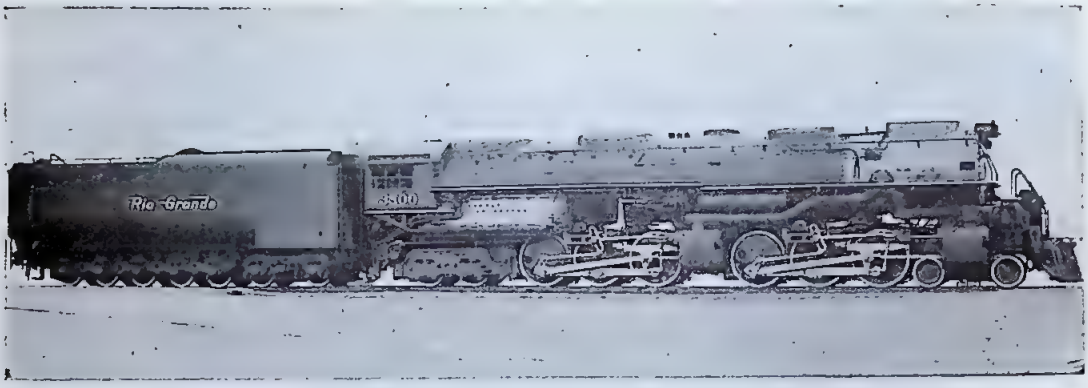



**K-59** The K's on the Rio Grande are the Mikados, standard freight work horses, new two or three decades ago. The K-59, of 59,000 pounds tractive effort, has been used of late years in light local freight service as well as local passenger trains. Baldwin built 13 engines in this class in 1913. They weigh 444,700 pounds.

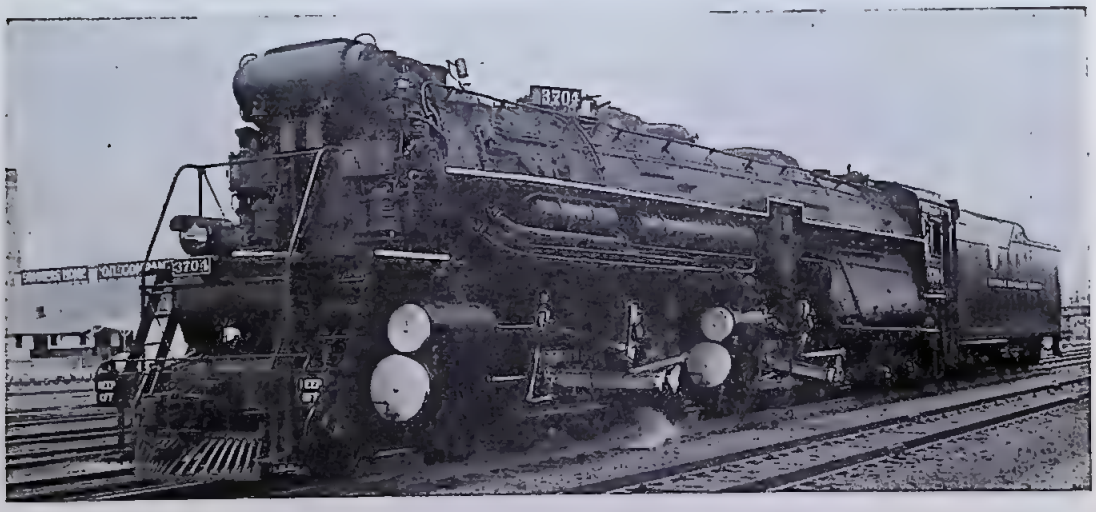


**P-44** P is for Pacific, the World War I standard for heavy passenger service. The P-44's, with their 44,594 pound tractive effort, are used primarily on branch lines in light local service. Six of these engines were built in 1913 by Baldwin. The low 1000 numbers have been recently changed to 800 series, as on page 40.

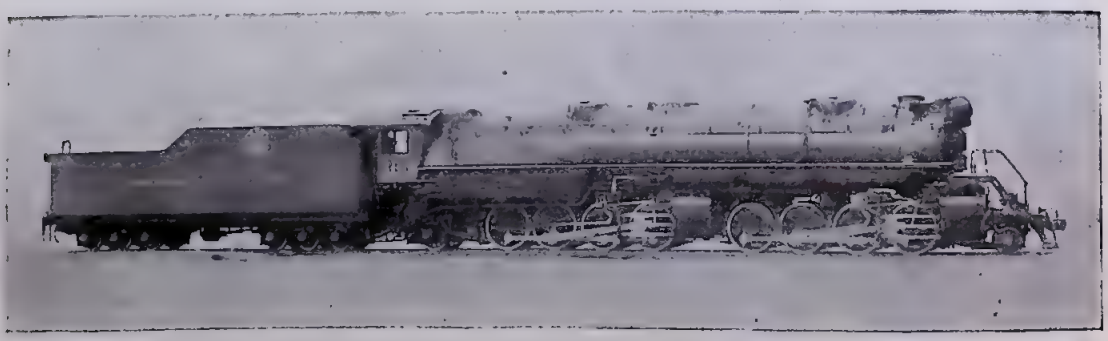
**DE-225** Fast mainline freight service on the Rio Grande is now largely handled by 5400 horsepower Electro-Motive Diesels, of which the road has 12 built in 1942-1944. One of the four-unit freight Diesels has been split into two pairs, each of which handles passenger cars on the two overnight Prospector trains.



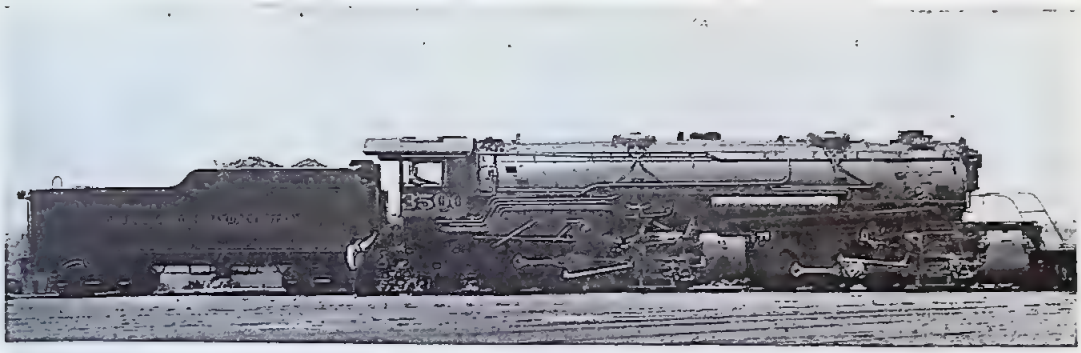

**L-97** The six 4-6-6-4 Challenger type articulateds of 97,350 pounds tractive effort acquired during the war and built by W. P. B. order identical to a concurrent Union Pacific series, are used in fast freight on the west end of the system. Articulateds, once restricted to heavy grades, are becoming all service freight types.



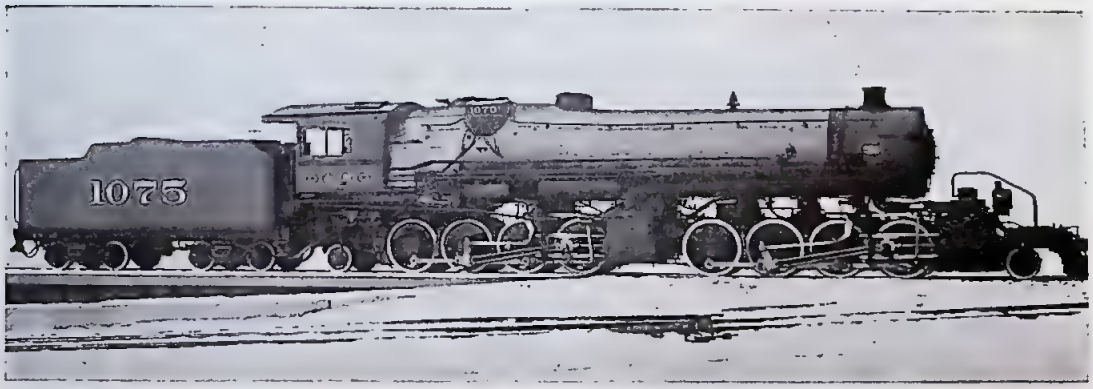

**L-105** The Grande's own 4-6-6-4's are the L-105's, of which 15 were built in 1938 and 1941. They weigh 1,035,900 pounds, exert 105,000 pounds tractive effort, have 70-inch drivers, are used for fast freight.



**L-131** Even though not quite as heavy in total weight as the 4-6-6-4's, the 2-8-8-2 L-131 and L-132 classes exert more pull, 131,800 pounds, and are therefore used on heavier grades. The 20 were built in 1927-30.



**L-107** Earlier 2-8-8-2's were the L-107 and L-109 classes, of which 18 were built in 1918 and 1923. These slow, ponderous beasts are used in mainline freight service as pusher engines. They are true Mallet compounds.

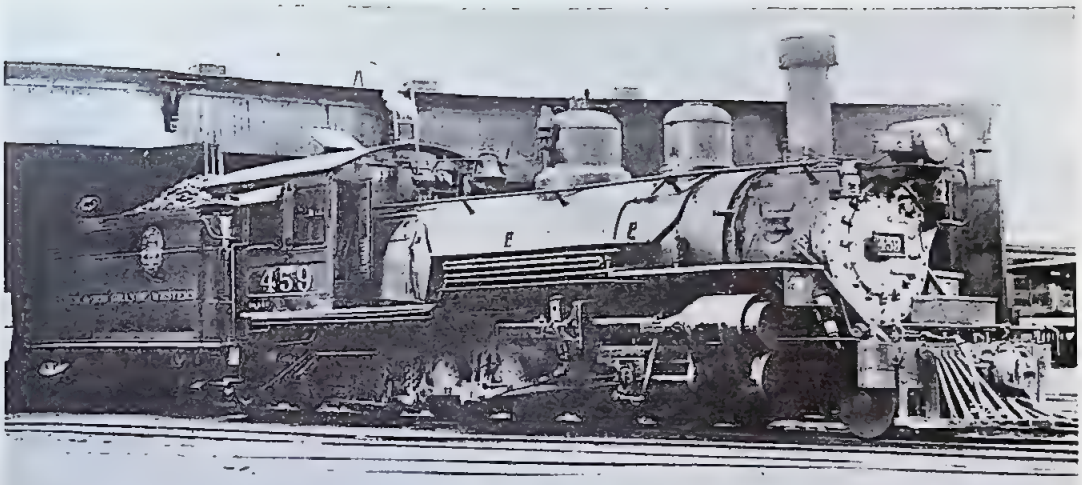



**L-95** Still older Mallet compounds are the 2-8-8-2's built in 1913 with weight of 639,200 pounds and tractive effort of 95,000 pounds. These 15 engines, which have been renumbered in 3400's, are used as pushers. Large front low pressure cylinders identify the compound Mallet from ordinary articulated engines.

**L-62** The oldest Mallets on the Grande have recently been renumbered in the 3300 series, although this picture still shows the old number. Built in 1910 and 1916, these 10 engines vary both in weight and tractive effort but are all of 2-6-6-2 wheel arrangement. Tractive effort on the later group is 75,830 pounds.

**F-81** The ten Santa Fe type (2-10-2) locomotives, built in 1913 by Alco, are used on heavy coal trains. Though the one in the photo is numbered 1254, the group has recently been renumbered in the 1400 series. These engines have tractive effort of 81,200 pounds and a total weight in working order of 634,800 pounds.

**C-48** In 1906 through 1908, when they were built by Alco, the 68 Consolidations of 48,100 pounds tractive effort were very respectable mainline freight power, but now they are relegated to switching and local freight.



**Narrow Gauge**

Rio Grande was originally built as a three-foot gauge system and still has more narrow gauge mileage than any other road in the country. Many of the small, light narrow gauge engines have gone the way of the light traffic branches they powered. These comparatively hefty Mikados are typical of the 44 narrow gauge locomotives still at work on the system. Top is a K-27 class, tractive effort 27,000 pounds, built in 1903; below is a K-37, 37,100 pounds tractive effort, built in 1928. Drivers range from 37 to 44 inches.

**DE-60**

The nine Baldwin Diesel switchers built in 1941, rated at 660 horsepower and 59,700 pounds tractive effort, are part of a stud of 34 Diesel-electric switchers, including 19 larger and 6 smaller units.

**DE-66** Largest Diesel switchers are the 1000 horsepower, 69,000 pounds tractive effort units built by Alco since 1941. With their high tractive effort at low speeds, these 19 engines are very well suited for switching.

**DE-26** The little baby switchers are 380 horsepower locomotives built by General Electric. Six of these are in service. They weigh only 89,000 pounds, less than the tractive effort of many of the road locomotives.

Courtesy Southern Pacific.

**Seldom seen activity is the nightly washing all streamliner trains get at their termini. These pictures show some of the operations on one of the Southern Pacific's Daylight trains at the Alhambra, Calif., coach yards.**

## The Overland Route

The nickname, "The Overland Route," for the first transcontinental railroad, goes back to a saloon in San Francisco run by a Dutchman in the Gold Rush days. At that time there were three ways to reach the Golden Gate City—around Cape Horn, across the Isthmus of Panama, or over the prairies and mountains of the United States. When a stranger came into his saloon the Dutch proprietor would ask, "Did you come the Horn around, or the Isthmus across, or the land over?" The term "land over" stuck and finally evolved into the English term, "over land."

## Loco Motion

How can even a powerful freight locomotive move 5000 tons' dead weight from a standing start? It's done by taking on the load one car at a time. The drawbar can move inward or outward underneath a car about three inches by the action of the draft gear. The cars move together when the train stops, so that each car can move approximately six inches before the next one starts. If it were not for this, the most powerful locomotive ever built could not start a 5000-ton freight train on its way.

## A Plug for a Reader's Aid

Many writers well known in other fields have written railroad fiction. They include Rex Beach, Willa Cather, Winston Churchill (the American author), Theodore Dreiser, Zane Gray, Edward Everett Hale, Peter B. Kyne, Joseph Lincoln, Christopher Morley, Mark Twain, Cy Warman, and Harold Bell Wright. Octavus Roy Cohen, O. Henry, and Julian Street have contributed short stories to the library of railroad fiction. *The Railroad in Literature* by Frank P. Donovan Jr., lists and discusses the best of railroad fiction, poetry, songs, records, and biography. It is published by the Railroad & Locomotive Historical Society, Baker Library, Harvard University, Boston, Mass., at a cost of $3.

## Ask & Get

Whenever Ernie Pyle mentioned in his column that he needed something, his readers snowed him under with gifts of the articles. The story is told that one day he wrote that he certainly was glad he had never expressed a need for a Baldwin locomotive. Immediately the clipping services began flooding Harry Stanley, of the agency that handles Baldwin's publicity, with clips of Pyle's column. Harry wrote Ernie that he had earned a locomotive for giving such good publicity to Baldwin. Where did he want it sent? Ernie's Washington office soon replied: Ernie appreciates the offer, and would the locomotive works please send him a big, fresh engine to Albuquerque, N. M., plus about 800 miles of track?

# RUNNING EXTRA

Virginia Kazda started wrapping packages for us in March, 1943. She suggested several practical improvements and soon found herself in the business office with the nasty job of answering complaints.

Now tracing down a complaint is often a job for a Sherlock Holmes, while expediting matters so that the situation will not occur again may require the tact of Cordell Hull.

Somehow or other, Virginia managed to satisfy all of her correspondents sooner or later. Things have gone so well that on February 1 she was appointed business manager.

With this issue of TRAINS, we bid good-by to three industrious and debonair members of our staff. Julie Bursch, shown here at work on the map of the Sacramento Canyon which appeared in the January issue of TRAINS, has been an important member of our Art Department.

The other girls who leave us with this issue are Naome Bauer and Mary Crane. Naome posed for the picture on page 23. She was our desk editor, and like Julie, was with us during the time her husband was overseas. Mary did a bang up job writing and rewriting stories and captions and was research editor since Joe O'Hearn became Mr. Kalmbach's assistant.

# Railroad

### Can't Be Done

C&O and Nickel Plate have advertised lavishly for coast-to-coast through cars and stated they are willing to start the ball a-rolling. Granted the idea has merit, can somebody say where the through cars should start, over what lines they should run, and to what destination? Regardless of the answers, there'll be a million howls from the neglected cities. For instance, if New York-Los Angeles cars run from New York over the NYC, then passengers from such cities as Trenton, Philadelphia, Harrisburg and Pittsburgh are still going to have to change trains in Chicago; no one is going to say there is sufficient business to operate through from each eastern city to each western city over each of the several routes.

E. L. Thompson, Washington, D. C.

### Rebuke

Are the railroads going to take a step backwards by completely ignoring C&O's challenge for through coast to coast passenger service? Are they just going to pass it off by pointing out that it is impractical because there are too many routes that have to be satisfied for the available traffic? For shame! No other transportation industry would let such an idea go by without first examining every possibility. We have three or more trunk lines that connect New York and Chicago. From Chicago there are three most used routes to Los Angeles, three to Seattle, four to Portland and two to San Francisco. Why not examine the possibilities of rotating the service? On the first day between New York and Los Angeles a through car via NYC-CRI&P-SP could be offered. The next day would offer the through car via PRR-C&NW-UP, and the third day B&O-AT&SF. By this or a similar method of rotation cars could be run only as often as traffic would warrant. At the same time all roads now handling such through business would continue to do so. Chicago-Florida service is now being handled in this same way.

Cardiff B. Ornstein, Oak Park, Ill.

### Curses, Foiled Again!

Look at your mastheads of TRAINS: They have run like this—

October, 1945, Volume 5, Number 12;
November, 1945, Volume 6, Number 1;
December, 1945, Volume 5, Number 2—? ? WHAT the—
January, 1946, Volume 5, Number 3—AGAIN?—And, still—
February, 1946, Volume 5, Number 4—

Say—what is the matter with this TRAINS? Did they have to BACK and start start start start—BACK up, now look, it's got me repeating—come on, get over the hump where she belongs.

W. H. B. Jones, P. O. Box 777, Galveston, Tex.

[We're a bit bad on our higher mathematics. Only five fingers on one hand you know. But we think we have this issue right.—*Ed.*]

### D&H's Last 4-4-0 Mother Hubbard

Item one. Page 55. Inside back cover. One of Ted Gay's beautiful shots of a D&H 453. So far so good. But—the caption lists it as the *last remaining* Mother Hubbard on the line! I will grant you that it is the last remaining 4-4-0 Mother Hubbard, all the rest of the class having been either scrapped or rebuilt to back-cab engines. But, the last remaining Mother Hubbard on the D&H; Oh! Mr. K.! perhaps that 0-8-0 Mother Hubbard (No. 82) which I saw last night in the local engine terminal is just an illusion.

Lawrence C. Himrod, 714 Chenango St., Binghamton, N. Y.

# Mail

### Engineers as Experts

Just read D. R. Davis' letter in your January issue in which he criticizes the jumpy starts and stops made by railroad engineers. I wonder if Mr. Davis realizes that the railroads in general spend great sums of money in educating their enginemen in efficiency in fuel economy, train handling, etc. The engineer is trained from the time he first sets foot on the locomotive to make his first trip firing until he is retired from service. He is constantly under the watchful eye of the Road Foreman of Engines, the Master Mechanic and other Division officers. Far be it from the engineer to make rough stops or starts if he can possibly avoid doing so. He takes great pride in doing his work as it should be done. The railroad appreciates good work. If Mr. Davis should happen to get the opportunity, let him ride the cab of a locomotive some dark, dreary and stormy night, just to learn how the engine crew watches for signals, etc., regardless of how badly it is storming.

W. H. Halsey, 532 Burlington, Billings, Mont.

### Do Helper Crews Work By Sixth Sense?

In the interesting article "In the Canyon of the Sacramento" in TRAINS for January, 1946, you do not tell how the head end, rear end, and middle engineers signal to each other when to apply power, when to shut it off, and when to brake. How is it done?

A. J. G. Illian, N. Y. Cotton Exchange Bldg., New York, N. Y.

[Engineers at separated locations in a train have several ways of keeping in touch: whistle signals when starting, watching air gauge to note brake applications, watching exhaust of locomotive ahead when it can be seen, and watching for pullout of slack in cars immediately ahead. For the most part engineers on helper locomotives know what to do simply from knowledge of how trains are handled over the particular stretch of road. They expect the lead engineer to do what they would do at the same place with the same train.—*Ed.*]

### Boston, Revere Beach & Oahu

The day after reading the excellent article on the BRB&L I came across the enclosed item in the Boston Globe:

"Maj. John A. Haley of Lynn, recently returned from the Pacific, says that the 'Narrow Gauge' coaches which shuttled for years between Lynn, Winthrop and Boston are now rolling in Hawaii, between Honolulu and Schofield barracks, and on other short runs on the island of Oahu."

Albert G. Hale, 82 Roberts Rd., W. Medford 55, Mass.

### Electric Lights for Cabooses

There apparently are some horses that do better by PUSHING a cart than they do by pulling it. The Rio Grande apparently falls into this category. In the February issue, in the Railroad Mail department, Mr. Edward Taylor suggests that railroads should devote their money and energies toward developing electric lights in cabooses INSTEAD of spending money experimenting with radio transmission. As you probably know, the Rio Grande was one of the first to experiment with short-wave radio operation, and now have the "Flying Ute" freights operating regularly between Denver and Salt Lake with two-way radio in operation end to end and train to station. To get the best performance from the radio equipment selected, we have developed a simple yet reliable and durable power unit for each caboose assigned to this service, and all cabooses now so equipped also have electric lights. More cabooses are being similarly equipped regularly at present. So by putting the "cart before the horse," we came out with the first regular freight service with short-wave radio controls AND the electric lights in the cabooses which Mr. Walker wants.

Ken Lightburn, D&RGW News Bureau, Denver, Colo.

# SECOND SECTION

With summer vacations already being planned, photographic film now in some of the stores and the restrictions on railroad photography lifted in most places, this will probably be one of the biggest years of railroad photography ever. When taking pictures, don't forget to take a few for our pages. If you've contributed before, you know pretty well what we like, and you know that we like to have a lot of pictures on hand for a selection in order to properly illustrate coming stories. We have an Editorial Bulletin, No. 3, which should interest you. If you do not already have a copy, just drop us a card and we'll be glad to send it to you. It tells you how we make payments for photos, how we file them and some tips about how to get the best results when photos are to be reproduced in a magazine.

One word of caution is important. If you're going to send any of your pictures to other magazines besides TRAINS, be sure not to send the same picture to two different magazines. When a magazine pays for the rights to a picture, no competitive magazine has a right to use that picture, and the photographer who receives payment has no right to sell it to any other magazine. If you send the same picture to two magazines, you might be in the embarrassing position of having sold the same thing twice.

There are any number of excellent places in this country where railroad pictures can be taken that have not yet been explored. It's quite a sport to find the new locations, and be one of the first to record them on film. Great favorites are places where railroads cross each other, beautiful scenes along rivers or mountain sides, and busy city scenes. While you're taking pictures, don't forget a few close-ups of the railroad men at work in this greatest of all businesses. Close-ups of railroad men's activities and close-ups of parts of locomotives, cars, track, signals, offices, shops, or railroad buildings put punch into the well-picked collection of railroad photographs.

**Now we have some copies of December, 1945, Trains—newsdealer returns. So if you're one of the hundreds of people who sent quarters for this number and had your money refunded, send us that quarter again and this time we'll be able to send you a magazine.**

When you move, be sure to send us your new address at least four weeks in advance to insure against missing any copies of TRAINS. The post office does not forward magazines unless you leave postage for that specific purpose, so unless you tell us when you move you'll almost certainly miss an issue. Remember, we need four weeks' advance notice, and both your old and new address. Lost copies often cannot be replaced due to the greater than ever paper shortages.

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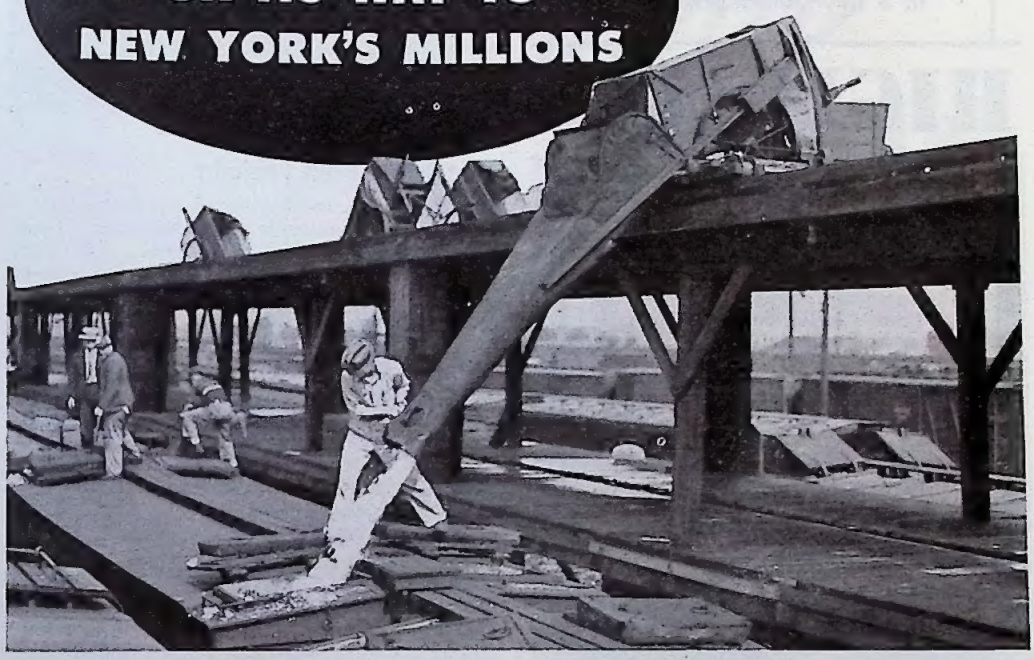

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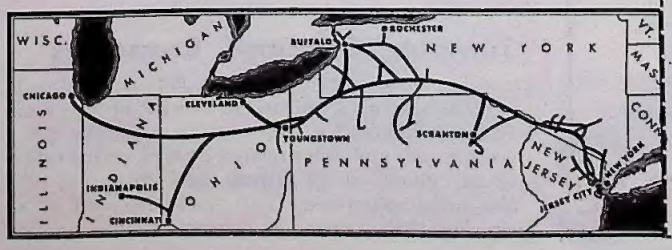


R. B. Rogers, Passenger Traffic Mgr., Erie Railroad, Midland Building, Cleveland 15, Ohio.

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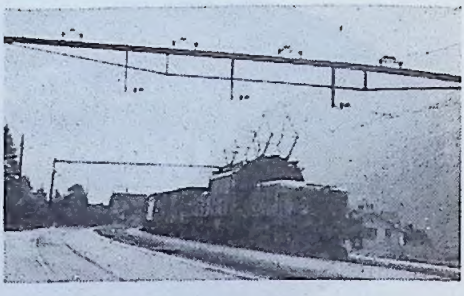

## Gotthard Fast Freight

This heavy locomotive is drawing tonnage freight up the 2.7 per cent grade toward the Dazio-Grande loops near Faido. This is on the Italian side of the Alps but is in a part of Switzerland that extends over into the Italian Lake region. Power is supplied from hydraulic plants to the catenary at 15,000 volts. On this side of the main tunnel the Gotthard line passes through four loop tunnels cut into the sides of the gorges in order to gain sufficient altitude to reach the tunnel portals. Three similar tunnels are employed in letting the line down the other side. St. Gotthard tunnel, 9.25 miles long, was the world's longest until the 12 mile Simplon was built.

## A Helping Hand on Strange Tracks

During the war, many a locomotive turned up hundreds, even thousands of miles from home, helping out where motive power was scarce. This was accomplished by leases and outright sales with the AAR often helping to close the deals. Most notable example of leasing was from the Duluth, Missabe & Iron Range. During winter months when the Great Lakes Ore Fleet was tied up, it released 10 articulateds, three Santa Fes, four Mikados, 18 Consolidations, and two switchers. Some of the big articulateds went in service on the Rio Grande, others on the Great Northern, and Northern Pacific. Western Pacific leased some of the Santa Fes and Mikados. The Chicago & North Western leased 15 Mikados to the Seaboard; the Southern, 13 Consolidations to the Atlantic & Yadkin; the Burlington, six Mikados to the Rio Grande; and Detroit, Toledo & Ironton, four Consolidations to Cotton Belt. Norfolk & Western mallets were all over the map, some of them helping Rio Grande trains over Tennessee Pass, or the Super Chief over Raton Pass on the Santa Fe. Others handled Tennessee Central traffic in the mountains. This was one small facet in the glittering performance of U. S. Railroads in wartime.

## Turnouts, Crossings, Crossovers

What is commonly called a switch on a railroad is really a turnout. A turnout consists of a pair of switch points and a frog together with the connecting rails and other related devices, guard rails, switch stand, etc. Crossings and crossovers are also often mistermed. Two tracks intersect at a crossing while a crossover connects parallel tracks.

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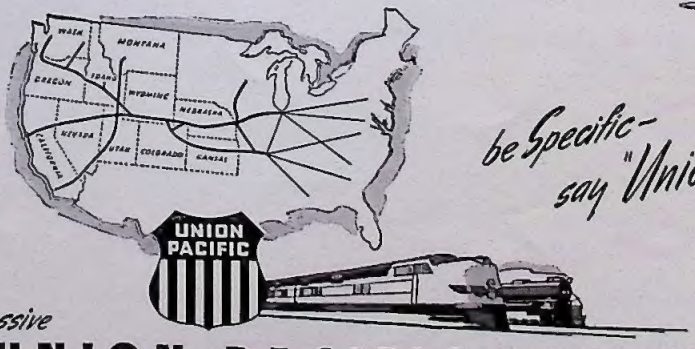


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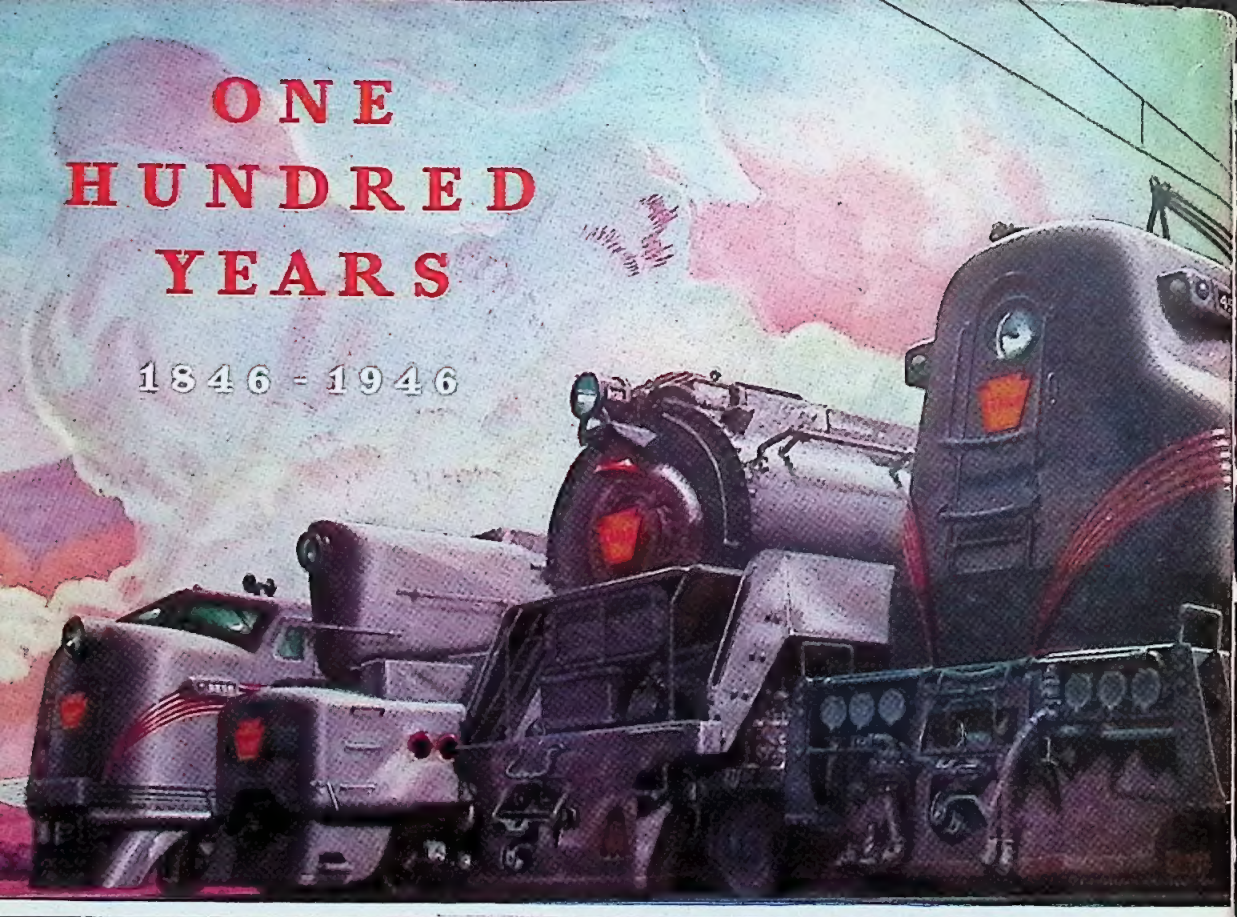
**UNION PACIFIC RAILROAD**

ROAD OF THE *Streamliners* AND THE *Challengers*

# ONE HUNDRED YEARS

## 1846 - 1946



*The "John Bull," built in 1831—America's oldest original locomotive*

*A Pennsylvania Railroad locomotive of 1865*

*Power in 1902 for the Pennsylvania Special, forerunner of the Broadway Limited*

THIS YEAR—1946—marks a century of progress by the Pennsylvania Railroad in service to the American people. Reflecting the tremendous industrial growth of the Country itself, this service has steadily advanced from a few trains a day to 1,340 passenger trains and 3,170 freight trains daily, operating over 10,114 miles of line extending from the Atlantic to the Mississippi. Now, as we prepare to move into a second century, our combined research, engineering and shop facilities are producing new trains, new locomotives, new cars, new comforts and new technical achievements . . . to add another chapter of transportation progress that has continued for one hundred years.

**PENNSYLVANIA RAILROAD**

*Serving the Nation*